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VOLUME 17 APRIL-MAY-JUNE, 1920 NUMBER 2

BULLETIN

OF

THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE

CATALOG 1919-1920

WITH ANNOUNCEMENTS FOR 1920-1921

UNIVERSITY OF

PUBLISHED QUARTERLY BY
OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE
STILLWATER, OKLAHOMA

ENTERED MARCH 9, 1903, AS SECOND CLASS MATTER, UNDER ACT OF CONGRESS OF JULY 16, 1894. ACCEPTANCE FOR MAILING AT SPECIAL RATE OF POSTAGE PROVIDED FOR IN SECTION 1103, ACT OF OCTOBER 3, 1907. AUTHORIZED SEPTEMBER 17, 1918

BULLETIN

OF THE

OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE

STILLWATER, OKLAHOMA

TWENTY-NINTH

ANNUAL CATALOG

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Entered as second-class matter March 9, 1903, at the Postoffice at Stillwater, Oklahoma, under Act of July 16, 1894. Acceptance for mailing at special rate of postage, provided for in section 1103, Act of October 3, 1917, authorized September 17, 1918

CHART OF OKLAHOMA A. & M. COLLEGE WORK

Oklahoma Agricultural and Mechanical College

The College, after twenty-eight years of development consists of 166 teachers and officers, a group of eighteen brick and stone buildings, a science equipment costing more than a quarter of a million dollars, and 1,000 acres of land. Total value of buildings, grounds and equipment, $1,310,908.17

1. Resident Instruction

Four-Year Courses in
- Agriculture
- Engineering
- Home Economics
- Science and Literature
- Education
- Veterinary Medicine
- Commerce and Marketing

Two-Year Courses in—
- Vocational Agriculture
- Vocational Home Economics
- Trades and Industries
- Business Training

Short Courses for—
- Dairymen
- Farm Boys
- Farmers
- Engineers
- Teachers

2. Experimentation and Research

The Agricultural Experiment Station carries out investigations along agricultural and related lines. Subjects of investigation are: Crops, soils, fertlizers, feeds, feeding, plant and animal breeding, and diseases,and pathological, physiological conditions of plants and animals, veterinary medicine, etc.

Bulletins and an Annual Report are published for free circulation.

3. Extension Service

Agricultural Extension, under the terms of the Smith-Lever Act—County Agent work in Agriculture and Home Economics.

Lectures at Farmers' Institutes and other meetings.

Organizing Boys and Girls Clubs at home for the study of Agriculture, Domestic Art and Science, and related subjects.

Bulletins, circulars and annual reports are published for free circulation.

Oklahoma Farmers' Congress.

COLLEGE CALENDAR

FIRST SEMESTER

1920

September 8, Wednesday—Entrance Examinations; General Faculty Meeting, 3 p. m.
September 8 and 9, Wednesday and Thursday—Registration.
September 10, Friday—Classwork Begins, 8 a. m.
September 15, Wednesday—First Student Assembly, 11 a. m.
November 25, Thursday—Thanksgiving Day, a Holiday.
December 23, Thursday—Christmas Holidays Begin, 8 a. m.

1921

January 3, Monday—Work of First Semester Resumes, 8 a. m.
January 22, Saturday—First Semester Closes, 5 p. m.

SECOND SEMESTER

January 24, Monday—Entrance Examinations.
January 24 and 25, Monday and Tuesday—Registration.
January 26, Wednesday—Classwork Begins, 8 a. m.
February 22, Tuesday—Washington's Birthday, a Holiday.
March 25, Friday—Easter Recess Begins, 12:00 m.
March 29, Tuesday—Classwork Resumes, 8 a. m.
May 22, Sunday—Baccalaureate Sermon.
May 28, Saturday—Commencement Day.
June 3, Thursday—Second Semester Closes.

SUMMER SESSION

May 31, Tuesday—Summer Session Opens.
July 4, Independence Day, a Holiday.
July 29, Friday—Summer Session Closes.

(The Faculty reserves the right, without further notice, to modify any announcement made in this catalog, if circumstances render such change necessary, and in any event will be bound by it for only the year following the date of publication.)

DEDICATION

To the memory of former Oklahoma A. & M. College men who, in their patriotic devotion to duty, bravely answered their Country's call, endured the hardships and horrors of modern warfare, and finally gave the "last full measure of devotion" to the cause of humanity and world freedom, this page is gratefully and reverently dedicated

—o—

Oklahoma A. & M. College had 1,438 men in service, 29 of whom made the supreme sacrifice. Their names, rank, branch of service and former homes are given on the following page.

ROLL OF HONOR

Former A. and M. College men who, during the Great World War, gave their lives to their country and the sacred cause of freedom:

Lieutenant James Wesley Amspacher, Engineers, Quay, Okla.
Lieutenant John C. Baker, Aviation, Stillwater, Okla.
Private James Bass, Infantry, Elk City, Okla.
Corporal Clyde Brantley, Infantry, Goodwell, Okla.
Lieutenant Dick Bland Breeding, Infantry, Holdenville, Okla.
Private John Harold Crawley, Infantry, Oklahoma City, Okla.
Private Albert Denton Dickey, Infantry, Omega, Okla.
Lieutneant Walter W. Drew, Infantry, Ardmore, Okla.
Lieutenant Wayne W. Fish, Engineers, Helena, Okla.
Lieutenant Roger F. Folsom, Infantry, Tulsa, Okla.
Private Elbridge Burtis Green, Machine Gun, Cestos, Okla.
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Second Lieutenant Fred Hirschi, Artillery, Iowa Park, Texas.
Bugler Thomas Raymond Hurst, Infantry, Pocasset, Okla.
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Private William Rosenbaum, Chemical Warfare, New York, N. Y.
Private Ernest L. Simpson, Infantry, Guthrie, Okla.
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Lieutenant Dixie Bchon Tucker, Artillery, Stillwater, Okla.

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MRS. ABIGAIL MORGAN, *Bookkeeper.*

MRS. RHODELLA DOTY, *Assistant Bookkeeper.*

MINNIE McCOY, *Stenographer.*

RUTH POWERS, *Stenographer.*

GRACE DONART, *Stenographer.*

MADELINE RYNO, *Stenographer.*

P. R. ROBERTSON, *Stenographer.*

NELLIE KNIGHT, *Mailing Clerk.*

MINNIE CLAUSEN, *Assistant Mailing Clerk.*

ETHEL CLAUSEN, *Filing Clerk.*

NEOMA WALLIS, *Multigraph Operator.*
MRS. BERTHA BRIGGS, *Statistical Clerk.*

EXTENSION DIVISION FIELD AGENTS

DISTRICT AGENTS

C. W. CALLARMAN, South Central District.
JOHN M. WHITE, Southeast District.
B. F. MARKLAND, North Central District.
GEORGE W. VINCENT, Northeast District.
DAN DIEHL, Southwest District.
T. A. MILSTEAD, Northwest District.
R. C. SHIFLETT, B. S., Oklahoma A. and M. College; *Assistant*, Panhandle District.
MRS. DAISY M. FRAZIER, *Woman's District Agent*, Western Counties.
MISS ANNA LEE DIEHL, *Women's District Agent*, Eastern Counties.
ALMA LEE KEYS, B. S., Oklahoma A. and M. College; *Assistant District Home Demonstration Agent.*
IRMA RAPP, B. S., Oklahoma A. and M. College; *Assistant District Home Demonstration Agent.*
W. A. HILL, All Negro Work.

COUNTY AGENTS

G. E. DAVIS, - - - - - - - - - - - - - - - - - Stilwell, Adair County
C. A. PATTERSON, B. S., Kansas State Agricultural College, - Cherokee, Alfalfa County
T. J. ELDREDGE, - - - - - - - - - - - - - - - Sayre, Beckham County
J. M. RAPP, B. A., Ohio Northern University, - - - - - - Watonga, B aine County
G. B. DUNLAP, B. S., Oklahoma A. and M. College, - - - - Durant, Bryan County
I. E. NUTTER, - - - - - - - - - - - - - - - - Anadarko, Caddo County
F. K. WEST, - - - - - - - - - - - - - - - - El Reno, Canadian County
J. L. DENNISTON, - - - - - - - - - - - - - - Ardmore, Carter County
J. A. WYATT, - - - - - - - - - - - - - - - - Hugo, Choctaw County
B. W. McGINNIS, - - - - - - - - - - - - - - Boise City, Cimarron County
L. E. BOGAN, - - - - - - - - - - - - - - - - Norman, Cleveland County
J. F. NEELY, - - - - - - - - - - - - - - - - Lawton, Comanche County
S. D. JOHNSON. - - - - - - - - - - - - - - - Walter, Cotton County
G. E. THOMAS, - - - - - - - - - - - - - - - - Vinita, Craig County
J. W. RILEY, - - - - - - - - - - - - - - - - Bristow, Creek County
M. A. WATKINS, - - - - - - - - - - - - - - - Clinton, Custer County
W. F. PORTER, - - - - - - - - - - - - - - - - Taloga, Dewey County
F. F. PARKER, - - - - - - - - - - - - - - - - Arnett, Ellis County
D. T. MEEK, - - - - - - - - - - - - - - - - - Enid, Garfield County
A. T. BURGE, - - - - - - - - - - - - - - - - Pauls Valley, Garvin County
J. W. OWENS, - - - - - - - - - - - - - - - - Chickasha, Grady County
R. T. LEE, D. V. M., Southwestern Veterinary College, - - - Mangum, Greer County
A. E. PORTER, B. S., University of Illinois - - - - - - - Buffa o, Harper County
J. L. SCHAD, - - - - - - - - - - - - - - - - Stigler, Haskell County
T. A. VANDERPOOL, - - - - - - - - - - - - - Holdenville, Hughes County
R. E. BERRY, B. S., Oklahoma A. and M. College, - - - - Altus, Jackson County
C. C. STINSON, B. S., Oklahoma A. and M. College, - - - - Ryan, Jefferson County
J. P. GRAY, - - - - - - - - - - - - - - - - - Tishomingo, Johnston County
J. F. RIDDELL, - - - - - - - - - - - - - - - - Blackwell, Kay County
C. S. MERYDITH, B. S., Oklahoma A. and M. College, - - - Ponca City, Kay County
O. W. TALLEY, - - - - - - - - - - - - - - - - Hobart, Kiowa County
N. C. WARD, - - - - - - - - - - - - - - - - - Wilburton, Latimer County
H. W. C. SHELTON, - - - - - - - - - - - - - - Poteau, Leflore County
J. W. GUIN, - - - - - - - - - - - - - - - - - Chandler, Lincoln County
J. R. WILEY, - - - - - - - - - - - - - - - - - Guthrie, Logan County
R. F. WATERS, B. A., University of Arkansas, - - - - - - Marietta, Love County
WORD CROMWELL, - - - - - - - - - - - - - - - Purcell, McClain County
L. G. HERRON, B. S., Oklahoma A. and M. College, - - - - Idabel, McCurtain County
H. B. FINKLEY, - - - - - - - - - - - - - - - - Fairview, Major County
J. L. HENDRICKSON, - - - - - - - - - - - - - - Eufaula, McIntosh County
W. E. MARTIN, - - - - - - - - - - - - - - - - Madill, Marshall County

C. R. JACKSON, - - - - - - - - - - - - - - - - - Pryor, Mayes County
P. W. SWARTZ, - - - - - - - - - - - - - - - - - Sulphur, Murray County
J. M. DAILY, - - - - - - - - - - - - - - - - - Muskogee, Muskogee County
S. E. LAIRD, - - - - - - - - - - - - - - - - - Perry, Noble County
H. M. WOLVERTON, - - - - - - - - - - - - - - - - Nowata, Nowata County
E. A. KISSICK, - - - - - - - - - - - - - - - - Okemah, Okfuskee County
C. R. DONART, B. S., Oklahoma A. and M. College, - Oklahoma City, Oklahoma County
D. P. TRENT, B. S., Oklahoma A. and M. College, - - - Okmulgee, Okmulgee County
S. M. McCUISTION, - - - - - - - - - - - - - - - - Pawhuska, Osage County
JAS. LAWRENCE, - - - - - - - - - - - - - - - - - Miami, Ottawa County
M. T. MAUDLIN, - - - - - - - - - - - - - - - - - Pawnee, Pawnee County
L. E. RATHBUN, - - - - - - - - - - - - - - - - - Stillwater, Payne County
E. B. NELMS, B. S., Oklahoma A. and M. College, - - - McAlester, Pittsburg County
J. B. HILL, - - - - - - - - - - - - - - - - - - Ada, Pontotoc County
W. R. SHELTON, - - - - - - - - - - - - - - - - Shawnee, Pottawatomie County
GEO. INNES, - - - - - - - - - - - - - - - - - Antlers, Pushmataha County
A. I. JORDAN, - - - - - - - - - - - - - - - - Cheyenne, Roger Mills County
H. G. HOWARD, - - - - - - - - - - - - - - - - Wewoka, Seminole County
FRED INGRAM, - - - - - - - - - - - - - - - - Sallisaw, Sequoyah County
BEN HARRISON, B. S., Oklahoma A. and M. College, - - - Duncan, Stephens County
J. B. HISEY, - - - - - - - - - - - - - - - - - Guymon, Texas County
J. W. SIMPKINS, - - - - - - - - - - - - - - - - Frederick, Tillman County
J. S. MALONE, B. S., Oklahoma A. and M. College, - - - - - Tulsa, Tulsa County
C. M. HUBBARD, - - - - - - - - - - - - - - - - Wagoner, Wagoner County
H. GARLAND, - - - - - - - - - - - - - - - - - Cordell, Washita County
W. D. KENNON, B. S., Oklahoma A. and M. College, - - - - - Alva, Woods County
W. F. GRAY, B. S., Oklahoma A. and M. College, - - - Woodward, Woodward County

COLORED AGENTS

P. M. MANN, - - Okmulgee, Okmulgee County, and southwest quarter of Wagoner County
W. M. MINGO, - - - - - - - - - Chandler, Lincoln County, and Creek County
LEVI NELSON, - Muskogee, Muskogee County, and southeast quarter of Wagoner County
L. W. PRESLEY, B. S., Colored Agricultural and Normal University, Oklahoma, - -
- Eufaula, McIntosh County
J. W. SHOALS, - - - - - - - - - - - - - - - - Idabel, McCurtain County
J. E. TAYLOR, B. S., Alcorn A. and M., - - - - - - - - Boley, Okfuskee County
E. R. MOORE, B. S., Iowa State College, - - - - - - - Wewoka, Seminole County

COUNTY HOME DEMONSTRATION AGENTS

MRS. KATHERYN JACKSON, - - - - - - - - - - - - Duncan, Bryan County
MISS VERA MILLER, - - - - - - - - - - - - - - Anadarko, Caddo County
MRS. MARY B. RUFF, - - - - - - - - - - - - - El Reno, Canadian County
MRS. MINNIE B. CHURCH, - - - - - - - - - - - - Ardmore, Carter County
MRS. ESTHER G. LEWIS, - - - - - - - - - - - - Hugo, Choctaw County
MISS GRACE T. CLOWDIS, A B., Ouachita College, Arkansas - Coalgate, Coal County
MISS EDNA I. WHITAKER, - - - - - - - - - - - - Bristow, Creek County
MISS LENA F. GERNERT, - - - - - - - - - - - - Clinton, Custer County
MRS. A. N. SOUTHWICK, - - - - - - - - - - - - Enid, Garfield County
MRS. NETTIE R. CORYELL, - - - - - - - - - - - - Chickasha, Grady County
MRS. DAISY N. ELDER, - - - - - - - - - - - - - Medford, Grant County
MRS. HELEN CONDON, - - - - - - - - - - - - - Mangum, Greer County
MRS. IDA E. SWEET, - - - - - - - - - - - - - Buffalo, Harper County
MISS RACHEL BLAIR, - - - - - - - - - - - - - Stigler, Haskell County
MRS. ELIZABETH WARD, - - - - - - - - - - - - Wilburton, Latimer County
MRS. LYLE BRECKNER, - - - - - - - - - - - - McAlester, Pittsburg County
MRS. MARY A. E. SHELTON, - - - - - - - - - - - - Poteau, Leflore County
MRS. MARY LANGSTON, - - - - - - - - - - - - - Guthrie, Logan County
MRS. CHARLOTTE H. WEST, - - - - - - - - - - - - Idabel, McCurtain County

MRS. FLORA BEAVER, - - - - - - - - - - - - Fairview, Major County
MISS MAUD ANDREWS, B. S., Oklahoma A. and M. College, - Madill, Marshall County
MRS. LULU S. GREEN, - - - - - - - - - - - Muskogee, Muskogee County
MRS. ADA B. SIMS, - - - - - - - - - - - - - - Perry, Noble County
MISS GLADYS GRAY, - - - - - - - - - - - - - Okemah, Okfuskee County
MISS ITA ROSS, - - - - - - - - - - - Oklahoma City, Oklahoma County
MRS. FRANCES McLEOD, - - - - - - - - - - Okmulgee, Okmulgee County
MRS. ALMA T. McCUISTION, - - - - - - - - - - Pawhuska, Osage County
MRS. ELVA R. DUVALL, - - - - - - - - - - - Oakman, Pontotoc County
MRS. ELLA INNES, - - - - - - - - - - - - Antlers, Pushmataha County
MRS. MYRTLE WATSON, - - - - - - - - - - - Claremore, Rogers County
MRS. ETHEL HOWARD, Bachelor of Pedagogy, - - - - - - Wewoka, Seminole County
MRS. EVA MOSTELLER, - - - - - - - - - - - - Frederick, Tillman County
MRS. SADA GROMMET, - - - - - - - - - - - - - Tulsa, Tulsa County
MISS DADIE DUVALL, - - - - - - - - - - - - Wagoner, Wagoner County
MISS IVA M. FURCH, - - - - - - - - - - - Bartlesville, Washington County
MRS. SUSAN GRAY, - - - - - - - - - - - - Woodward, Woodward County

WOMEN AGENTS (Colored)

MISS AQUILA O. CHADWICK, - - Muskogee, Muskogee County, and Wagoner County
MRS. ANNIE PETERS, - - - - - - Boley, Okfuskee County, and Seminole County
MISS MAUD SMITH, - - - - - - Okmulgee, Okmulgee County, and McIntosh County
MISS CAMILLA STEWART, - - - - - - - - - - - - Chandler, Lincoln County

FIRST REGIMENT OKLAHOMA A. & M. COLLEGE CADETS
RESERVE OFFICERS TRAINING CORPS

OKLAHOMA A. AND M. COLLEGE CADET CORPS

FRANK D. WICKHAM
Major, United States Army
Professor of Military Science and Tactics

MALCOM E. CRAIG
First Lieutenant, United States Army
Assistant Professor of Military Science and Tactics

GORDON LUPTON
Corporal, Infantry, United States Army
Assistant

FIELD AND STAFF

Colonel
French, Earl R.
Lieutenant Colonel
Rey, Walter A.
Majors
Terry, Lee R.
Beck, William J.
Regimental Adjutant
Williams, Armon, **Captain**
Supply Officer
Briggs, A. B., **Captain**
Battalion Adjutants
Taylor, Clarence P.
Hildebrand, Richard
Regimental Sergeant Major
Pratt, Roy O.
Regimental Supply Sergeant
Campbell, William D.
Color Sergeants
Pulliam, Gordon
Lowe, Fred D.
Battalion Sergeants Major
Wainscott, L. B.
Lowe, Fred D.
Sergeant Bugler
Wiedey, Fred W.

BAND ROSTER

Drum Major
Hurst, Richard
Band Leader
Stevens, Carl
Sadlo ,George
Assistant Band Leader
Sergeants
Shannon, R. D.
Soule, Clayton
Scroggs, William
Corporals
Stewart, J. F.
Hendrickson, Ashur
Braly, Warner L.
Musicians, First Class
Daniels, Edward W.
Smelser, Carl A.
Musicians, Second Class
McKee, Loren
Nelson, I. H.
Sturgis, Alden
Colbert, Richard
Privates
Abernathy, William E.
Adams, Paul G.
Bieberdorf, Gustav
Bishop, Lester
Calavan, Louis
Calavan, Spencer
Colbert, Abijah
Coppedge, William H.
Dale, Dean
Dixon, H. L.
Folk, Charles
Folk, Joe
Fry, R. B.
Goranflo, Wilbur
Green, H. A.
Hampton, Leo
Harvey, Arthur
Haston, Clyde
Hol'ingshead, Estel
Hendricks, Ray
Holmes, Ramond
Privates
Hendrickson, Hugh
Huckstep, J. T.
Isenberg, Gilbert
Ketch, Warren V.
Kramer, Teddy
Kugel, Harry
Kugel, Glenn
Lemmon, Robert
Martin, Frank
Lonergan, John
Schatz, Ted
Shaw, Clarence
Smith, Norman J.
Soule, E. F.
Sturgis, Nelson
Swim, Elmer
Tankersley, Arlyn
Webb, Guy
Wood, Eddie L.
Wood, William Roy
Woolard, Charles

COMPANY A

Captain
Carlton, Oscar F.
First Lieutenants
Dickerson, L. L.
Kratzer, Roy E.
Second Lieutenant
Robberson, P. A.
First Sergeant
Kollar, S. F.
Platoon Sergeants
Kroutil, Edwin
Robinson, Maurice
Sergeants
McDonald, Tillman
Reed, Nathan G.
Lemmon, H. D.
Williams, Howard
Corporals
Allbright, R. H. G.
Arrington, Charles
Bracken. Clifford
Elkins, Oscar
Vincent, Robert
Walker, Allen
Knight. Joe
Springer, George C.

Corporals
Hurst, Henry
McAdams, T. P.
Corporal Bugler
Zink, David
Bugler, First-Class
Anderson, Donald H.
Privates
Atkinson, Dick H.
Bell, Clifton E.
Beorner, Carl
Burnell, Sam C.
Burrus, Adrian
Calame, Louis M.
Carpenter, Carlisle
Childers, Manford
Craig, Roy V.
Crooks, Cecil C.
Clarke, Donadl C.
Croskell, McKilney
Davis, Con C.

Privates
Dale, Donald
Frost, Mark
Gearhart, H. B.
Gibson, J. L.
Goold, Edwin
Henson, Elmer D.
Henson, Merritt
Hargis, Frakn
Higgins, William O.
Higgins, Solon L.
Hodges, Joe
Hulse, Olie
Hartpence, Dorling
Kich, Charles W.
Knight, Ivan
Latimer, Raymond
Laurent, Ray A.
Lauderdale, Glenn
Ludwick, Russell
McDonald, Leon J.

Privates
McWethy, Mead
Maxwell, Clifford
Melton, Mark
Michael, Edward W.
Nelson, Ray
Roberts, Ed
Redmond, Cecil
Reeder, Dewey F.
Smith, Basil
Smith, Homer
Symms, Elbridge
Webb, Milton
Widener, Ray
Williams, Paul
Wisherd, Thomas
Woodring, Harry
Young, John
Young, Raymond
Howard, William P.

COMPANY B

Captain
Percival, Charles
First Lieutenants
Ray, Wilbur
Steele, Milan G.
Second Lieutenant
Hinson, Marcus W.
First Sergeant
Adams, Paul
Platoon Sergeants
Bolyard, Wayne M.
Offield, John
Sergeants
Bishop, William J.
Emmons, Warren H.
Eaton, Howard C.
Zeman, John
Corporals
Murray, M. B.
Bonner, Lawrence
Strange, Gordon
Brown, B. H.
Davis, Harold
Hemphill, John
Pace, Elmer
Hawthorne, Roy
Crawford, J. C.
Graves, Eugene
Corporal Bugler
Pugh, Marcus B.

Bugler, First Class
Drake, Glenn
Privates
Baird, Ray
Bliss, Harmon
Blakely, Horace C.
Bosshart, Ted
Briscoe, Frank
Burke, Othie G.
Carlton, Gilby
Carleton, Lee H.
Carlisle, Robert
Cermak, Wesley
Cheatman, James
Christy, M. C.
Cotter, J. H.
Couch, Earl
Daley, Thomas F.
Jeffeyes, Alfred
De Grouchy, Ames
Dillon, Herbert
Elledge, A. J.
Elithorp, Roy
Emert, Glenn
Evanhoe, Bernard M.
Finny, W. D.
Finely, Bennett
Farnsworth, Lester
Gasaway, Frank
Graham, Russell

Privates
Gulick, Raymond
Hastain, James
Hawes, Vernon
Holmes, Lynn
Hunter, Robert
Jedlicka, Bohumil
Kilpatrick, Lester
McLish, Glenn
Manney, Jerry
Moffat, Hal D.
Moore, Samuel H.
Morris, Thomas B.
Mulvey, M. O.
Nehrbass, Paul
Nichol, Claude O.
Outhier, Rolland
Perrin, Roy O.
Bannel, John
Patton, William
Reichman, Curtis
Shepler, Gerald
Sittel, Virgil
Stout, William M.
Swanson, J. L.
Tate, Marion
Thompson, Benjamin
Ward, Elvin

COMPANY C

Captain
Stafford, Fred T.
First Lieutenants
Tabor, Paul
Calame, Carroll E.
Second Lieutenant
Beanblossom, Floyd
First Sergeant
Moore, John E.
Platoon Sergeants
Dunavan, Ralph
Clayman, Milton W.
Sergeants
Kidd, Robert L.
Rowley, S. E.
Varnum, Robert
Oldham, Roy
Corporals
Hart, Rupy
Foliart, Jesse
Patchett, Robert

Corporal
Tharp, Merle L.
Rice, Lewis
Gasler, F. R.
Witt, Alfred
Bartlett, Berl
Hopkins, Omar
Wilham, Oliver
Corporal Bugler
Woothtakewahbitty, Owen
Bugler, First Class
Morris, S. E.
Privates
Bagby, Edward
Baker, Alpa I.
Brown, B. B.
Childers, Merritt
Cook, A. E.
Cook, William
Clark, Aubry
Cruz, Antonio

Privates
Defee, Marion
Divine, Lois
Gaddis, Preston
Gilmer, Guy
Goll, Moxie
Haag, E. R.
Harris, Etafford
Hastings, Joel
Henderson, Charlie
Hickman, Glynn
Hulse, A.
Keiffer, Roscoe F.
Ketch, Aurvil
McCoy, Vance
McConkey, Russell
McCullough, Doris
Marquess, J. M.
Marx, Harold
Moore, George
Mobley, Gerald F.

Private
Mohler, Orville
Morgan, William E.
Offield, Ivan
Olive, Roy
Osborn, Fred
Pruett, Earl
Ramey, Glenn C.
Rice, O. W.

Private
Richards, Anyle
Sablan, Ramon
Sacket, Francis
Sawyer, Damon
Schuelin, Fred
Shippey, Loton
Shunatoma, Baptiste B.
Sloan, Ray

Private
Small, Van
Smith, Allen
Smith, Gunner
Smith, John E.
Stavely, Charlie
West, Oscar
Wright, Harry A.
Winters, Elijah

COMPANY D

Captain
Carleton, Howard
First Lieutenants
Hendrix, Rex B.
Wurtz, Bradley L.
Second Lieutenant
Wyatt, William B.
First Sergeant
Arrington, E. A.
Platoon Sergeants
Sanford, J. T.
Sergeants
Craft, Martin
Wells, Cecil G.
Maness, Vern L.
Ives, John
Barrett, Charles F.
Corporals
Baker, E. A.
Davis, Paul
Jensen, Richard
Boles, Charles
Kirkpatrick, William
Roeser, W. F.
Hudiberg, C. L.
Adams, Frank C.
Gould, Chester
Lucas, Donovan
Corporal Bugler
Braley, Edwin B.

Bugler, First Class
Mooring, Ben
Privates
Adams, Henry
Allen, Homer
Anderson, Floyd L.
Armstrong, Ezra
Anthis, James E.
Beltz, Aaron
Baumer, Halton
Beaver, H.
Biggerstaff, H. O.
Blattler, Paul
Bozarth, Jake
Chelf, Tom B.
Bull, R. B.
Burrough, Herman
Cobb, Harry F.
Cobb, Kedzie
Cox, Rufus
Davis, Frank
Davis, Perry
Dawson, Farrel
DeWitt, Glen
Drake, Albin
Eggleston, John
Garen, Joe
Glisan, Melton
Goodson, James
Graham, Albert

Privates
Grow, Russell
Hall, Robert G.
Iby, Eugene
Johnson, Frank F.
Keys, Chester
Kirkpatrick, Estel
Knight, Fred
McFall, William K.
Metcalf, Sydney
Mielitz, Gustav
Moore, William
Neslon, Henry
Norris, Theodore
O'Connor, Nolan
Pock, Ben H.
Pock, George
Reid, O'Niel
Sale, Robert
Snyder, Simon B.
Souter, Prentiss B.
Sullivan, Doyle
Tims, Virgil
Umbach, Arnold
Van Valkenburg, Norman
Wisherd, James
Wieshnieff, Joseph

COMPANY E

Captain
Baker, Oral
First Lieutenants
Tesone, Silver
Kirkland, Ira H.
Second Lieutenant
Florence, W. D.
First Sergeant
McCullough, Loyd E.
Platoon Sergeants
Wilson, Hubert C.
Walsh, G. L.
Sergeants
Keen, Clifford
Loosen, Max
Long, William H.
Jehlicka, Ludvik
Corporals
Helm, Wayne
Toler, George
Nicholson, Bonnie
Von Tungeln, Lloyd A.
Fox, Otis Otto
Boyd, Frank
Bellis, Rex
Daniels, Harold
Pugh, Orio
Holmes, Carl
Corporal Bugler
Cowan, Ira

Bugler, First Class
Green, Ralph B.
Privates
Adams, Arles
Breedlove, Walton
Beack, Marion
Butler, Frank
Cansler, Charles J.
Carlton, Hillis
Cherry, Francis
Davis, Clarence
Files, Kilby
Finnell, John
Fitzgerald, Milton
Floyd, Curtis
Fry, Floyd Vinton
Gilstrap, Wheeler
Giblert, A. E.
Gooch, Glenn
Gordon, Samuel M.
Harper, Paul
Hatfield, Ernest
Henson, Russell
Hinshaw, Roy E.
Hodgden, T. W.
Johnson, George
Johnson, Henry
Kent, Le Roy
Kuntz, Earl
Lafon, Finis

Privates
Gifford, R. La Mont
Lanphere, W. B.
Lee, Robert E.
Locke, Ray
Luckert, John
Middleton, Glenn
Murphy, Oso
Murray, Fulton
Nelson, Raymond
Newlin, William
Pendleton, Lee
Quigg, Quinton
Race, Melvin
Ragan, Joseph T.
Reynolds, ack
Richardson, Cecil
Richardson, Gladwell
Roberison, Merle
Rogers, Taylor
Sackett, James S.
Schedler, Raymond
Southerland, Basil
Staten, Glenn
Stahmer, Ernest
Wright, Lewis W.
Wunderlich, Fred

COMPANY F

Captain
Goodwin, Rufus Q.
First Lieutenants
Park, H. C.
Harper, Roy E.
Second Lieutenant
Thomas, Frank D.
First Sergeant
Smart, Harold
Platoon Sergeants
Morrell, Charles
Campbell, Walter F.
Sergeants
Earley, George C.
Brooks, R. N.
Beil, Cecil
Bradshaw, Claude
Corporals
Graves, W. Charles
Cheek, Leonard
Shelton, L. C.
Mitchell, Ross
Stanberry, Hubert
Wilson, W. E.
Atkinson, J. A.
Holt, William W. W.
Taylor, Fred
Pipegrass, Rudolph
Corporal Bugler
Haxton, Doyle
Bugler, First Class
Baker, Donald
Privates
Allen, Crowder
Barber, Dvais
Barnhill, Llyod
Ballinger, Jean
Bieberdorf, Fred
Blackketter, Roy
Boyd, Ted
Brady, H. T.
Brackhage, Hugo
Brandon, Lillard
Cogburn, Berl
Coyner, Raymond
Davis, Claude
Dean, Clifford
Dryden, Oran
Fath, G. W.
Fite, Orla
Grove, C. G.
Harp, Mark
Hesterlee, William
Hull, Everett
Krause, Lloyd
Mahoney, George
Auten, James
Meyer, Arthur
McDonald, Paul
Perryman, Vernon C.
Privates
Potter, Marvin
Rhoades, Lee
Rios, Jose L.
Rosario R. Juan
Smith, Ochelata
Staples, Robert
Steel, James
Steelman, Buell
Stockton, Chester
Strozier, Andrew
Stranfe, Douglas
Swing, E. Q.
Summers, Floyd
Tate, Bert
Tatum, Harry
Taylor, George
Todd, Sidney
Trimble, Edwin
Thompson, Cecil
Townsend, Vernard
Wallace, Jake
Walter, Cleo
White, Chester
White, Herbert
White, Louis
Willard, Ray

STANDING COMMITTEES OF THE FACULTY—1920-21

ENTRANCE
GUNDERSON, *Chairman;* KEZER, PATTERSON, ROCKEY, POFFENBERGER

COLLEGE GOVERNMENT
KEZER, *Chairman;* KEMP, BEESON

TEXTBOOKS
JONES, *Chairman;* JABLOW, MICHAELS

GRADES AND REPORTS
GUNDERSON, *Chairman;* CHAMBERS, TALBOT

DORMITORY
BEESON, *Chairman;* THORNTON, HARTSOCK

STUDENT PLAYS AND SOCIAL ENTERTAINMENTS
MOORHOUSE, *Chairman;* ARNOLD, THORNTON

COURSES OF STUDY
BOYD, *Chairman;* DEANS OF SCHOOLS

LITERARY SOCIETIES
ROCKEY, *Chairman;* PELSMA, ARNOLD

CATALOG AND COLLEGE PUBLICATIONS
BAGBY, *Chairman;* DEANS OF SCHOOLS

SCHEDULE
LANE, *Chairman;* DOWELL, McELROY

DINING HALL SUPPLIES
OTEY, *Chairman;* SWIM, ABBOTT

STUDENT LABOR
BOYD, *Chairman;* HARTSOCK, ROLFS

ATHLETIC COUNCIL
MOORHOUSE, *Chairman;* GALLAGHER, WICKHAM

AFFILIATED SCHOOLS
McCARREL, *Chairman;* CALDWELL, MADDOX

LIBRARY
KEMP, *Chairman;* CHAMBERS, MOORHOUSE, KNIGHT

RULES AND REGULATIONS
KEMP, *Chairman;* KEZER, THORNTON

GRADUATE COURSES
SANBORN, *Chairman;* PATTERSON, GUNDERSON, CHAMBERS

AGRICULTURAL PUBLICATIONS
KNIGHT, *Chairman;* BENTLEY, PRESIDENT

BOARDING AND ROOMING HOUSES
BEDINGER, *Chairman;* CALDWELL, THORNTON, DAANE

ADVANCED STANDING
WHITENTON, *Chairman;* CHAMBERS, JONES, POFFENBERGER, DEANS OF SCHOOLS

FORENSIC
PELSMA, *Chairman;* ROCKEY, CALDWELL, JONES

CONVOCATION PROGRAM
HARTSOCK, *Chairman;* MICHAELS, MAKOVSKY

OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE

GENERAL INFORMATION

The Oklahoma Agricultural and Mechanical College was established in 1891 at Stillwater, Payne county, Oklahoma. It is an institution of higher learning, offering technical and scientific education to white persons 14 years of age and over.

The service rendered by the institution, however, is at present three-fold, represented by three divisions:

(1) The College proper.

The function of the College is to educate and train students in the sciences which relate to industry, and in such other subjects as will give a broad and liberal education, as a means of developing character, increasing efficiency, and assuring a high standard of citizenship.

The College comprises thirty-six departments, organized under seven different schools, which offer distinct courses of instruction to those who apply for graduation.

(2) The Agricultural Experiment Station.

Under Act of Congress of 1889, known as the Hatch Act, an agricultural experiment station has been established to carry forward investigations in agriculture of a research or experimental nature, to learn and make known such facts as may be of importance to the farmers of the state. Through the agency of the Agricultural Experiment Stations established in the various states and the United States Department of Agriculture, agriculture has become a well established science as well as an art.

(3) The Extension Division.

Under Act of Congress of 1914, known as the Smith-Lever Act, cooperative extension work has been established in connection with the Agricultural College, whose function it is to instruct citizens of

the state, who are not residents of the College, in the best proven methods of economic agriculture and home economics.

The Oklahoma Agricultural and Mechanical College is supported by funds received from the Federal Government and from the State of Oklahoma as a part of the free school system of the State. Tuition is free in all courses and departments.

LAWS CONCERNING THE COLLEGE

The A. and M. College owes its origin to a bill offered by United States Senator Morrill of Vermont in 1862, which privides funds for one such institution of learning in each State of the Union, and sets aside certain public lands from which endowments have come to each of these State and Federal colleges. Therefore these institutions are known as "The Land Grant Colleges".

This Act of Congress, approved July 2, 1862, gave to each State which accepted its provisions 30,000 acres of government land for each of its Representatives in Congress, the proceeds to be applied to the endowment and maintenance of colleges

> "where the leading subject shall be, without excluding the other scientific and classic studies, and including military tactics, to teach such branches of learning as are related to agriculture and mechanic arts, - - - in order to promote the liberal and practical education of the industrial classes in the various pursuits and professions of life."

Again, in 1887, Congress provided for an Agricultural Experiment Station in connection with each of the Land Grant Colleges:

> "That in order to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture and to promote scientific investigation and experiments respecting the principles and application of agricultural science, there shall be established under the direction of the College in each State and Territory, established - - - in accordance with an - - - 'Act donating public land to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts' - - - a department to be known and designated as an 'Agricultural Experiment Station'."

The First Legislature of the Territory of Oklahoma adopted a resolution assenting to and accepting the provisions of Congress and established the Oklahoma Agricultural and Mechanical College in Payne county, at Stillwater, December 25, 1890.

Congress also provided 250,000 acres of public land as a permanent endowment for the College in the Enabling Act granting statehood to Oklahoma.

The Oklahoma Constitution provides that the State Board of Agriculture shall be the Board of Regents of the A. and M. College in the following:

"Said Board (of Agriculture) shall be maintained as a part of the State Government and shall have jurisdiction over all animal quarantine regulations and shall be the Board of Regents of all State Agricultural and Mechanical Colleges."

The Oklahoma Constitution is the only State Constitution recognizing the fundamental importance of agriculture and domestic science. It declares that—

"The Legislature shall provide for the teaching of agriculture, horticulture, stock-feeding and domestic science in the common schools of the State."

According to the laws of Oklahoma "*The Agricultural and Mechanical College shall be the technical head of the Agricultural, Industrial and allied Science system of education in Oklahoma*".

In 1914 Congress adopted the Smith-Lever Bill, which provided:

"That in order to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics, and to encourage the application of the same, there may be inaugurated in connection with the college or colleges in each State - - - agricultural extension work which shall be carried on in cooperation with the United States Department of Agriculture - - - That cooperative agricultural extension work shall consist of the giving of instruction and practical demonstrations in agriculture and home economics to persons not attending or resident in said colleges in the several communities, and imparting to such persons information on said subjects through field demonstrations, publications, and otherwise; and this work shall be carried on in such manner as may be mutually agreed upon by the Secretary of Agriculture and State agricultural college or colleges receiving the benefits of this Act."

Through the acceptance of the terms of this Act by the Oklahoma State Legislature at the following session, the Agricultural and Mechanical College became the head of such cooperative extension work in Oklahoma.

The Reserve Officers Training Corps of the College was created as a result of an Act of Congress adopted in 1916 providing that:

"The President is hereby authorized to establish and maintain in civil educational institutions a Reserve Officers Training Corps which shall consist of a senior division organized at universities and colleges requiring four years of collegiate study for a degree, including State universities and those State institutions that are required to provide instruction in military training under the provisions of the Act of Congress of July 2, 1862, donating lands for the establishment of colleges where the leading object shall be practical instruction in agriculture and mechanic arts, including military tactics, etc."

The Sixty-Fourth Congress adopted what is known as the Smith-Hughes Bill, entitled:

"AN ACT to provide for the promotion of vocational education; to provide for cooperation with the States in the promotion of such educatin in agriculture and the trades and industries; to provide for cooperation with the States in the preparation of teachers of vocational subjects; and to appropriate money and regulate its expenditure."

SOURCES OF REVENUE

The Agricultural and Mechanical College derives support from both Federal and State Governments:

1. A fund derived from the United States Government, known

as the "Morrill Fund". This fund can be expended only for instruction of students in literature, languages, the sciences, and, by recent amendment, to prepare school teachers in the principles of agriculture and home ceonomics.

2. The United States Government funds for investigation of scientific and agricultural matters of importance to farmers, and for publishing the results of such tests and experiments, known as the Hatch and Adams Funds. These support the Oklahoma Agricultural Experiment Station.

3. A fund derived from the rentals of public lands donated by Congress to the Oklahoma A. and M. College under the Enabling Act granting statehood to Oklahoma, known as the "Land Lease Fund". This fund may be used for operating expenses of the College proper.

4. A fund appropriated annually or biennially by the State for buildings, repairs and extensions to the permanent equipment of the A. and M. College.

5. The Smith-Lever Bill, adopted by the Sixty-Third Congress, provides increasing support for cooperative agricultural extension work for a period of ten years, when the permanent basis of this support is reached. This fund is dependent upon cooperative support by the State and is available only for agricultural extension work.

6. An allowance established by an Act of Congress organizing the Reserve Officers Training Corps, and which provides pay and uniforms to certain military students under prescribed restrictions.

BUILDINGS AND EQUIPMENT

The principal buildings are:

Engineering Building.—This building was erected in 1912 at a cost of $74,994.50. It is three stories in height and covers 160×80 feet. It is of reinforced concrete and brick construction, with stone trimmings. On the ground floor are located the steam and hydraulic laboratories and boiler-room, the electrical laboratories, civil engineering laboratories for testing cement, masonry and steel, rooms for surveying instruments, storage-batteries, standardizing room, men's locker room, and office. On the next floor are the engineering library, the physical laboratory and lecture-room, four other lecture-rooms for the various departments, and rooms for

photometry, physical apparatus, stock and women's lockers. On the top floor are the quarters for the Department of Architectural Engineering, consisting of a lecture-room, library and reading-room, and a large drafting-room. There are also on this floor four drawing and lecture-rooms for the use of other departments, rooms for records, and offices for instructors.

Shop Building.—This building, which is of stone and brick construction, was erected in 1912 at a cost of $4,420.00. It is 40×200 feet, and for a depth of 80 feet it is two stories high, and the balance is one story. This building provides accommodations for the carpenter, machine and blacksmith shops and foundry, and has up-to-date toolrooms.

Heating Plant.—The heating plant, which is of reinforced concrete construction, was erected in 1912 at a cost of $40,000.00. It furnishes heat and light for all College buildings, and power for the shops.

Chapel Building.—This building, which is of reinforced concrete construction, with stone trimmings, was erected in 1912 at a cost of $84,075.28. It has a sloping floor, large balcony, roomy stage, with dressing rooms and accessories, and a seating capacity of 2,500.

Woman's Building.—This building is of brick and stone construction and was erected in 1910 at a cost of $62,000.00. It contains a gymnasium for the use of the women, a dinnig-hall, kitchen, reception hall, parlor, class rooms for the Domestic Science and Domestic Arts, and living rooms for the accomodation of the women students. The rooms are electric lighted, steam heated, and all halls are equipped with lavatories and baths. The Dormitory is under the supervision of a matron.

Men's Dormitory.—This building, which is of brick construction, was erected in 1910 at a cost of $25,000.00. It is three stories in height, and is equipped with all modern conveniences.

Old Chemistry Building.—This building was erected in 1898 at a cost of $12,000.00. It is a two-story brick structure with basement. The main portion of the building is 64×42 feet with a wing 54×32 feet. It houses the chemistry laboratories of the Experiment Station and classrooms and laboratories for instruction in agricultural and general chemistry.

Library Building.—This building, which is of brick and stone construction, was erected in 1901 at a cost of $48,417.42. It is two stories in height with a full basement. It is 72×76 feet with a wing 111×65 feet. Besides accommodating the library and reading-rooms, it is used in addition for the Department of Zoology and Veterinary Medicine, and for drawing and artwork.

Central Building.—This is the first building erected upon the campus of the A. and M. College. It is a two-story brick and stone building with basement, covering a space of 66× 60 feet, erected in 1892 at a cost of $25,000.00. It is used for classrooms, and in the basement is lodged the College printing plant.

Morrill Hall.—This is a three-story building of brick and stone construction, 76×166 feet, which was erected in 1906 at a cost of $74,600.00. By act of the Legislative Assembly providing for its construction it was named in honor of Senator Justin S. Morrill. It contains quarters for administration and business offices of the A. and M. College and Agricultural Experiment Station, lecture-rooms and laboratories for the Departments of Agronomy, Animal Husbandry, Horticulture, Botany, Entomology, and is the head-quarters of the Extension Division.

Dairy Building.—This building is of brick construction, two stories in height. It was erected in 1904 at a cost of $7,947.74. The main portion of the building is 60×30 feet, two stories in height, and a one-story addition is 50×32 feet. It contains class-rooms and laboratories for the Dairy Department, and a commercial creamery for experimental and instructional purposes.

Old Armory and Gymnasium Building.—This building, which is of brick construction, was erected in 1906 at a cost of $12,000.00. It houses the Department of Rural Engineering for laboratory and classroom purposes.

Livestock Judging Pavilion.—This building was erected in 1910 at a cost of $15,240.00. It is a two-story brick structure, which, by provision of the Seventh Legislative Assembly, was converted into a men's dormitory.

Old Engineering Building.—This building is of brick and stone construction with two stories and basement. It was erected in 1902 at a cost of $8,000.00, and is occupied by the Departments of Music and Business Training.

Greenhouse.—The Greenhouse was erected in 1909 at a cost of $5,000.00.

Poultry Building.—The main building for laboratory and class-rooms was erected in 1913 at a cost of $2,978.00. In addition to the main building there are a score or more of colony houses and a long laying house, and complete equipment for research and teaching.

Apiary and Insectary.—This building is of wood construction, erected in 1913 at a cost of $1,936.30. It houses laboratories for the Department of Entomology. A cupola is provided with a modern insect trap to aid in the study of winged insects.

Chemistry Building.—In 1919 a new Chemistry Building was constructed at a cost of approximately $100,000.00. This will house the Chemistry Departments of the College and Station.

Gymnasium.—This building was erected in 1919, to be used as a gymnasium and armory at a cost of approximately $100,000.00.

There are at present five barns, which may be enumerated as follows:

Brick barn, 60×90 feet, originally costing $7,500.00, is used for the housing of the horse herd.

Cattle barn, originally costing $8,000.00, for the present houses the dairy and beef stock.

Sheep barn, originally costing $8,000.00.

Hog barn, costing $1,000.00.

Veterinary barn, which also contains laboratories used by the Veterinary Department, originally costing $2,402.35.

Besides these barns, there is a seed-house upon the agronomy farm, and two barns used for housing work-stock.

Residences.—Residences are provided for the President, the Commandant, superintendent of the greenhouse and campus, foreman of the College farm, foreman of the agronomy experimental farm, and superintendent of the agronomy experimental farm.

REQUIREMENTS FOR ADMISSION

All persons who desire to enter any school of the College should make application to the Registrar as early as possible before the opening of the first or second semester. Those who desire to be admitted by certificate should make application as soon as possible

after their graduation from the high school. To all applicants a blank will be furnished which they are expected to fill out and file with the Registrar in advance of entrance. This certificate must give in detail, concerning each subject which the applicant has studied in the school, the length of time in weeks, the number of recitations per week, and the grade or mark indicating his proficiency. Upon receipt of this certificate a permit to register will be sent the applicant by the Registrar in advance of his coming in September. This will greatly facilitate the work of entrance. The student will present this permit at the registration room, and will not be compelled to wait his turn to meet the Entrance Committee.

DEGREE COURSES

Applicants for admission to the degree courses should be 16 years of age or over, and of good moral character. They will be required to present 15 units of entrance credits for admission to the Freshman class. The 15 units required are distributed in the most advantageous way for admission to the various College courses in the Schools of Agriculture, Engineering, Home Economics, Science and Literature, Education, Commerce and Marketing and Veterinary Medicine, as indicated in the following table. One who offers 14 such units will also be admitted as a Freshman, but will be conditioned in 1 unit. Such deficiency must be made up by the end of the second year that the student is in attendance.

	Agriculture	Engineering	Home Economics	Science and Literature	Education	Commerce and Marketing	Veterinary Medicine	Department of Music
English	3	3	3	3	3	3	3	3
Algebra	1	1½	1	1½	1	1	1	1
Plane Geometry	1	1	1	1	1	1	1	1
Solid Geometry	....	½	....	....	....	....	....	....
*Science	1	1	1	1	1	1	1	1
**Foreign Language	....	1	....	1	....	....	....	....
Social Science, including History	1	...	1	....	1	1	1	1
Required	7	8	7	7½	7	7	7	7
***Electives	8	7	8	7½	8	8	8	8
Total	15	15	15	15	15	15	15	15

*Physics required in Agriculture, Engineering and Science and Literature courses.

**Modern language or Latin required in Science and Literature course.

****To make up the total of 15 units the applicant may use as electives any accredited work satisfactorily completed in an accredited high school. A unit is defined to be the work done in an accredited high school or academy in five recitation periods a week for one school year.*

Entrance requirement for agricultural engineering is the same as for engineering.

DEFICIENCIES

The course in the Secondary School of the A. and M. College, offered in connection with the College, gives every needed opportunity for students of the College to make up anything lacking in their preparation for entrance. All such entrance deficiencies must be made up by the end of the second year that the student is in attendance.

ADVANCED STANDING

Applicants from other institutions of approved standing who offer collegiate courses or professional courses in excess of the requirements for admission, will be assigned such advanced standing as may be determined by the Committee on Advanced Standing.

Before considering the claims of any applicant for advanced standing, the committee will require, in addition to the data specified above (Requirements for Admission), official certificate showing: (*a*) That the applicant has been honorably dismissed; (*b*) what admission requirements were satisfied by the applicant in the institution from which he comes (and for this purpose, in addition to the certificate, a catalog of date concurrent with his admission will be required); (*c*) the duration of his attendance; (*d*) the character of the laboratory work done in preparatory schools. (This can be satisfied by submitting the student's laboratory notebook.)

All claims for credit must be specified at the outset. Claims not so specified will not be considered after the formal determination of credit, unless the work on which they are based was done after the previous claim was filed.

A. Collegiate Credit for College Work:

Students transferred from other colleges will be admitted to the same standing in this College, provided that (*a*) the admission requirements of the college from which the transfer is made are equivalent to those of the Oklahoma A. and M. College; (*b*) the courses taken are standard college courses equivalent to those offered by the Oklahoma A. and M. College; (*c*) the maximum amount of credit granted shall not exceed that obtainable during the same period of time at this College, i. e., 16 credits per semester; (*d*) if the bachelor's degree is sought, the total credit shall not

exceed 96 semester hours, one year of resident work being the minimum requirement for a degree.

B. College Credit for Normal School Work:

Students who have completed work of college rank in State Normal Schools may receive college credit on the following conditions: (*a*) Students who have completed the equivalent of 15 standard entrance units before entering a State Normal School, and who have been graduated from a two years' professional course in such a school may be granted 60 hours' credit; (*b*) students who enter normal schools without completing the equivalent of the 15 standard units may receive advanced standing for that work only which remains after the entrance requirements of this College have been satisfied. In such cases the total amount of college credit shall not exceed 30 semester hours.

C. College Credit for Preparatory Work:

Students who have excess credits for admission to College may be allowed college credit on the following conditions: (*a*) The work on which college credit is sought must have been done, after graduation from a high school, in a postgraduate course extending over at least one semester; the credit allowed shall not be more than half the time given, i. e., one year of such work in high school shall not be credited as more than one-half year of College work; (*b*) credit so listed is provisional and is formally confirmed by the Registrar only in case the student maintains during the first semester of resident work an average grade of 75 or better.

D. Advanced standing may also be obtained by written examination, conducted in the usual manner, after the applicant has satisfied the head of the department concerned that he has had sufficient instruction in the subject. The grade shall be reported to the Registrar.

SPECIAL STUDENTS

Persons of mature age who do not possess all the requirements for admission and are not candidates for a degree will be permitted to enter any of the courses in the different schools upon giving satisfactory evidence to the Dean of that school that they are prepared to take advantageously the subjects which they desire. If they desire to take advanced subjects, such as are offered in the Junior and

Senior years, they must show special preparation or special necessity for such courses. Persons applying for admission on the above basis are required to present a detailed statement of their preparatory work at the time of their admission.

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SECONDARY SCHOOL OF A. AND M. COLLEGE

NON-VOCATIONAL COURSE

Three years of preparatory work are offered in preparation for the four-year College courses. A student to enter the Secondary School must be at least 14 years of age and have satisfactorily completed the eighth grade of the common schools and the first year of high school. An eighth grade diploma or certificate will be required, and a statement of the grades received for the first year of high school must be presented, signed by the principal or other responsible officer.

Other applicants may be admitted upon passing satisfactory examinations.

VOCATIONAL COURSES—AGRICULTURE, HOME ECONOMICS, TRADES AND BUSINESS

The requirements for admission are the same as for the regular courses in the Secondary School, except that applicants may be admitted with deficiencies who have finished the eighth grade or its equivalent, and who are able by reason of age, maturity and experience, to do the work prescribed.

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REQUIREMENTS FOR GRADUATION

LEADING TO BACHELOR'S DEGREE

In all of the four-year courses of study leading to a degree, a student must earn 128 credits and 96 points, exclusive of any credits given for military science and physical training, before being eligible for a degree. A credit is one hour of theoretical work carried for one semester, three hours laboratory work being equivalent to one credit. The number of points depend upon the grade. (See below.)

The minimum requirement for the bachelor's degree is one year of resident work, and this work should be that of the Senior year.

GRADES AND REPORTS

The semester grade is the average of the daily grade and the grades made in tests, and in making up the final grade for the semester, the semester grade shall count two-thirds and the final examination grade one-third. Reports showing the grades and standing of students are sent to parents and guardians at the end of each semester. Attention is particularly directed to these reports; they are the best indication of the work and standing of the student.

Students receiving a condition in a subject must remove the condition before the end of the third week of the following semester.

REQUIREMENTS FOR MASTER'S DEGREE

1. Conditions of Candidacy.—A graduate of any school of this College, or of another institution in which the requirements for bachelor's degree are equivalent, may become a candidate for the corresponding master's degree by making application on a blank provided for the purpose.

2. Applications.—An application in outline form shall be submitted in triplicate, for approval not later than two weeks after the beginning of the semester, to the Committee on Graduate Courses, signed by the major professor, showing the nature and amount of major and minor work in theory and practice hours and equivalent credit hours. (Blank outlines may be obtained from the committee.)

On the reverse side of said outline the major and minor subjects (if not designated in the College catalog) shall be given in detail, including all topics to be considered. Subjects in minor work shall be approved, with signature, by heads of departments concerned.

3. Amount of Work.—The minimum requirement shall be not less than 30 credits.

In addition to this, a thesis upon some subject connected with the major study is required, upon recommendation of the major professor. An outline of the thesis must be submitted to the committee for approval at least six months preceding the date of

graduation. The thesis must cover some line of original research work under the supervision of the major professor, and the thesis as a whole must be approved by the major professor and the Dean of the school.

Two typewritten copies of the thesis, in specified form, shall be deposited, one with the major professor, and one with the College Librarian, at least two weeks before graduation.

5. Residence.—One year of resident work is required of every candidate, except that graduates of this College may be permitted in special cases to obtain one semester's credit at any other approved institution.

6. Degrees.—The degrees offered are of two kinds, viz., academic and professional. The academic degrees are Master of Science, as pertains to the schools concerned.

PROFESSIONAL DEGREES

A graduate of the School of Engineering who has been engaged in acceptable professional work for a period of not less than four years since graduation, who has been in responsible charge of such work for at least one year of this period; and shall present a satisfactory thesis, may be recommended to the Board of Regents for one of the following professional degrees: Mechanical Engineer (M. E.), Electrical Engineer (E. E.), Civil Engineer (C. E.), Architectural Engineer (A. E.).

An application for a professional degree, including a detailed statement of experience, must be filed with the Committee on Graduate Courses by the candidate at least one year before the granting of such degree. If this record is approved, the committee will turn same over to the head of the department under whom the work for the degree most properly falls. The head of this department will then confer with the applicant in regard to the thesis and will require monthly reports from him thereafter as to his progress. Two bound copies of the thesis must be filed not later than April 1 of the year in which he proposes to qualify for the degree.

7. Fees.—Before receiving a master or professional degree, the candidate shall pay to the Registrar a diploma fee of $10.00, and any unpaid laboratory fees.

COST OF ATTENDANCE

A deposit of $5.00 is required of each student at the beginning of each semester to cover damage, breakage, loss, etc. These charges are received weekly from the different department heads of the College, and any balance due the student will be refunded.

A library fee of $1.00 is required of each student at the beginning of each semester.

A fee of $1.00 is charged for all courses having laboratory work with the exception of chemistry, for which a charge of $2.50 is made.

A fee of $4.50 is charged all students each semester who take typewriting.

A deposit of $1.00 is required of all students each semester desiring a steel locker in the Gymnasium; 50 cents of this amount is refunded providing the locker is in good condition at the end of the semester.

A fee of $2.50 is charged each student desiring to use the swimming pool. Towels are furnished the student.

A fee of $22.50 per semester is charged for indiviudal lessons in music. Class instruction is free.

Pianos for practice will be furnished five hours per week for $5.00 per semester.

BOARD AND ROOMS

Furnished rooms in the Woman's Building or in the Men's Dormitory (including heat, light, water, etc., two students occupying each room) are provdied at $5.00 per month each, payable in advance. Application for dormitory accommodations must be made in writing to the Registrar. Those occupying rooms in dormitories must furnish towels, bed linen and covers. The two dormitory buildings contain bathrooms and all necessary facilities, and are thoroughly sanitary, heated by steam and lighted by electricity.

Board in the College dining-hall is provided on the cafeteria plan at actual cost. The student pays for what he selects, and the cost per student varies according to the amount he eats. The cafeteria plan provides opportunity for a larger menu from which to choose, and in general is more satisfactory than the plan of having a set table and no choice.

Board with room in private families can be obtained for $6.00 to $7.00 per week. Furnished rooms, $4.00 to $6.00 per month, if two occupy the room.

OTHER EXPENSES

The total cost of attending the A. and M. College courses embraces the items of board, books, clothing and minor incidental expenses of a personal character. These may be safely estimated at $250.00 to $350.00 for nine months. Sixty-three percent of the students materially reduce their expenses below the figures given by working in the several departments of the A. and M. College and in the City of Stillwater, and many earn all personal expenses.

AMOUNT REQUIRED TO BEGIN

Those students of limited means desiring to enter the A. and M. College should have some $125.00 available with which to bear the first items of personal expense and make sure of some months consecutive study. This amount is estimated to include:

Board and room, three months	$ 100.00
Books, etc	12.00
Incidentals	15.00
Personal expenses	$ 127.00

Freshmen and Secondary School boys must supply themselves with gymnasium suits costing $4.00. Girls of the Secondary School, Freshman and Sophomore classes must supply themselves with gymnasium suits costing $6.00.

A senior division of the Reserve Officers Training Corps has been established under the rules of the War Department. This entitles Freshmen, Sophomores, Juniors and Seniors who take the course to receive from the Government $18.75 for uniforms.

In addition to the above, Juniors and Seniors who take the advanced course in military science will be paid at the rate of $12.00 per month by the Government for rations. It is expected these amounts will be increased.

APPROVED ROOMING HOUSES

Comfortable and desirable homes in Stillwater are listed as "approved rooming houses" for non-resident students by the

Faculty Committee on Assignment to Rooms. Students are not permitted to room in other than approved rooming houses.

ADVISERS TO STUDENTS

To bring about a closer relation between students and members of the Faculty and parents, and for the purpose of safeguarding every interest of the individual student, the A. and M. College has adopted an "advisory system" which applies to all students. A small number of students are assigned to each instructor, who is known as their adviser for the year, and whose duty it is to know each of them personally, and to meet them from time to time. The adviser endeavors to become familiar with the conditions surrounding his students. In many instances he selects studies suited to the student's need or adjusts the student to his work and surroundings. Parents should not hesitate to write to advisers or to the President concerning matters that may have to do with the student's comfort and progress in their studies.

CARE OF HEALTH

The health of all students is a matter of chief concern to the officers of the A. and M. College. The rules require that all cases of illness be reported promptly. A responsible physician is employed who attends all students without charge in cases of illness or injury received in the line of duty, except cases of surgery. Sickrooms for the better accommodation of boys and girls suffering from illness are provided, without additional cost, in each of the dormitory buildings.

All students have access to the separate gymnasiums for boys and girls. Games and sports are encouraged for their mental relief and the physical relaxation afforded. These exercises, taken indoors and in the open air, followed by baths, and with the privilege of consultation on matters of personal health, afford valuable safeguards to the health of every student who attends the A. and M. College. One of the finest and best gymnasiums in the country is now fully equipped for the use of all students. A large swimming pool in connection is available for women two days each week under the supervision of a competent instructor.

STUDENT HELP

Students are employed on the farm, in the creamery, dining-hall, the Printing Department and elsewhere. This, in connection with such opportunities as are offered in the city, has enabled a very considerable number of students practically to make their own way through their College courses. The amount a student can earn depends almost entirely upon his energy, and the time he can spare from his studies. The rate of pay is 30 cents per hour. Skilled labor commands a better rate of pay—some lines of expert work paying 50 cents an hour. It must not be inferred that the A. and M. College engages to afford employment sufficient to enable every worthy young man to complete the course without other resources. With the growth of the institution has come an increased demand for this employment which it is impossible to meet in full, yet very few students have been compelled to leave College in recent years on account of inability to secure work.

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GENERAL INFORMATION

The seat of the Oklahoma Agricultural and Mechanical College is Stillwater, in Payne county, a "college town" of 5,000 people, most beautifully and healthfully situated at an elevation of 915 feet above sea-level. Payne county was one of the seven original counties of Oklahoma Territory, and is named for David L. Payne, the noted pioneer, who first settled near the present site of the College. Stillwater citizens and students of the A. and M. College enjoy the advantages of electric lights, telephones, free delivery of mail, a city water system, sewerage, paved streets, and a very complete system of brick walks shaded continuously by trees. Stillwater is on the Santa Fe Railroad (Arkansas City and Pauls Valley branch). The main connections are at Guthrie, Pawnee, Shawnee, Cushing and Davenport.

MORAL INFLUENCES

Eight leading churches are represented in Stillwater, and the students are encouraged to attend and participate in their services. As a matter of fact, the Sunday schools and the young people's societies of the several churches in Stillwater are sustained very largely by the students from the A. and M. College.

A Young Men's Christian Association and a Young Women's Christian Association are actively engaged in the numerous and beneficial lines of work characteristic of these organizations among students. These student organizations are not merely helpful to their membership, but exert a wholesome influence on the moral life of the A. and M. College.

LIBRARY

The new O. A. M. C. Library Building will be of brick and stone, and is designed in harmony with the newer structures on the campus in a modification of Italian Rennaissance.

The first floor contains six lecture-rooms and two offices, together with the smaller necessary rooms in connection with the well-equipped library. This floor is reached by two secondary entrances on the south side. A broad flight of stairs on the east end of the building leads to the loggia with its imposing Palladian motive. From here an interior stair brings one to the library floor with its great central reading-room, surrounded by six smaller special divisions, set off by columns. A superstructure above the center admits light to the main reading-room, and adds height and dignity to the interior.

The delivery desk, catalog room, and offices in the west end of the building connect directly with the stackroom. This runs the entire height of the two floors, and is divided into four stories by light steel stacks and runways.

There are now 26,503 bound volumes in the library. There are over 90,000 unbound pamphlets, which are arranged and classified for quick reference work. In addition, the library possesses over 50,000 unbound periodicals, which are rapidly being bound. The library receives about 400 of the leading newspapers and periodicals of the United States. Large dailies of the United States are kept on the newspaper racks for the use of the students, and most of the magazines indexed in the Reader's Guide are on our shelves. Daily attendance is large, and is increasing. The library is kept open about two hours in the evening.

Purpose.—It is the purpose of the Librarian not only to supplement the work of every department, but also to make the library the center of all literary activity of the College. Every effort is made to assist the students in the use of reference books, catalogs and in-

dexes, and to familiarize themselves with the best books and use of bibliographies.

Valuable Gifts.—The library has been enriched by the gift from the Carnegie Institution of Washington of all their publications, and also by the studies from the Rockefeller Institute of Medical Research. Each of these great institutions has placed the library on the "Omnia List". Other valuable gifts include several thousand periodicals and several thousand books.

Regulations.—Books may be drawn for a period of two weeks by all the officers and students of the College, and by others having special permission. General reference, reserve books, periodicals and dictionaries must be consulted in the reading-room, and not drawn from the library. Citizens and visitors, whether connected with the College or not, are invited to make free use of the reading and reference-room, and assistance in reference work will gladly be given them.

AWARDING OF POINTS AND HONORS

Points shall be awarded, exclusive of military and physical training in the Freshman and Sophomore years, in accordance with the following:

Grades between 93 and 100, 3 points per credit hour.
Grades between 85 and 92, 2 points per credit hour.
Grades between 75 and 84, 1 point per credit hour.
Grades between 70 and 74, 0 points per credit hour.

REQUIREMENTS FOR GRADUATION IN MORE OR LESS THAN FOUR YEARS

No student is permitted to register for more than 16 hours or less than 12 hours in a semester of a regular College course for which a degree is granted, exclusive of military and physical training in the Freshman and Sophomore years, with the following exceptions: (*a*) The privilege to register for more than 16 hours is denied if in the previous semester any of the Grades E, F, or an avoidable I has been received, or less than 16 hours have been successfully completed; (in the case of an unavoidable grade I, arrangements for its removal, within a definite, reasonable time, must be made satisfactory to the student's adviser and Dean); (*b*) students free from the limitations of rule (*a*) may register for one ex-

tra hour above 16 hours for every 2 points earned in the previous semester in excess of 12 points for not more than 20 hours, and 1 extra hour above 20 hours for every 3 points earned in excess of 20 points; (*c*) requirements for advanced standing concerning credit hours and points, extra hours, and graduation, shall be determined by the Committee on Advanced Standing from grades and work presented in proportion to the time required to complete the course; (*d*) students earning less than 12 points in a semester may register the next semester on probation as follows: The maximum of 16 hours or the minimum of 12 hours may be taken on condition that upon each monthly report there are no grades E, F, or avoidable I; (*e*) students failing to meet the requirements of (*d*) must reduce the amount of their work as follows: For every point below 12 points earned in the previous semester, 1 hour reduction from the total of 16 hours, adjustment to be made by the student's adviser and Dean; (*f*) failure to carry 12 hours with no grades E, F, or avoidable I, shall render student subject to temporary suspension, upon the approval of the President.

HONORS

Class honors are awarded each semester to those students earning 35 points or more during that semester. They shall be designated Freshman, Sophomore, Junior or Senior, first or second semester honors.

First final honors for 85 points earned in the Freshman year.

Second final honors for 170 points earned in the first two years.

Third final honors for 255 points earned in the first three years.

Honors for 300 to 339 points earned at the end of the Senior year.

High honors for 340 or more points earned at the end of the Senior year.

The names of all students earning honors will be printed in a special bulletin to be designated "HONOR BULLETIN" at the beginning of each semester and at commencement time.

The Honor Bulletin for each year will be included in the Catalog of each year.

THESES

In some departments a thesis is required for graduation, and in

other departments it is elective. Students intending to write theses must select the subject not later than the last week of the first semester, the subjects to be approved by the departments having charge of the work.

DIPLOMAS

Each candidate for graduation in the four-year courses shall pay to the Registrar $4.00; candidates for graduation in the Business Course and in the Vocational Courses shall pay to the Registrar $1.50 before the student is recommended for graduation.

LITERARY AND OTHER SOCIETIES

General literary societies are always active among the students. The Philomathean and the Omega Literary Societies enroll a large percent of the entire student body, and, in addition, a number of clubs and societies have been formed by students specializing in science, engineering, pedagogy, agriculture and domestic science for the purpose of supplementary work and investigation. The Athletic Association has charge of all local College sports, the "Tug-o'-War" and Field Day exercises, and of the interest of the institution in the interscholastic and intercollegiate meets. The Oratorical Association has charge of the representation of the A. and M. College in the preliminary intercollegiate oratorical contests.

ATHLETICS, MILITARY DRILL AND DISCIPLINE

The constant purpose of the A. and M. College is to develop "sound minds in sound bodies" and to train the moral faculties. Clean sports and games on the field cultivate the mental and moral sides of the individual as well as the physical side, while affording needed occasion for relaxation and the repair of muscular and nerve tissues. Ball games and track athletics are encouraged by the A. and M. College authorities.

The Gymnasium for men is under the supervision of the Physical Director. The exercises in the Women's Gymnasium are directed by competent women instructors.

The State Interscholastic Track and Field Meet is held on the A. and M. College grounds annually, to which the schools of all sections of Oklahoma are invited.

Baseball and football are provided with suitable grounds, and tennis courts are at the disposal of students.

Military drill is given during the first two years of the College course for its physical effects, and as required by the Federal law estbalishing this and other similar colleges. The good results of this drill are quickly noticed in the improved health and carriage and deportment of those coming under its helpful influence. Young men, especially, need such training to give them the erect carriage and strong physique that marks the man of military training.

A commissioned officer of the United States Army is assigned to duty at the A. and M. College as professor of military science. Instruction in military science is provided for all male students, and infantry drill is given in the field movements and under arms. Arms, accouterments and ammunition are supplied by the Federal Government. The military discipline is mild but firm, and cultivates habits of puncuality, alertness and the sense of personal responsibility. Military training, such as taught in the A. and M. College, is not for the purpose of training young men for an army career; it really is preparation for civil life. The discipline and courtesy which grow out of the relation of military men among themselves, and the lessons learned in keeping "fit to fight" are fine additions to the regular College study. A rifle club, organized by volunteers, is an interestnig feature of military training.

The Federal measure establishing the Reserve Officers Training Corps provides free uniforms to all cadets taking three hours drill per week, and to those taking the advanced course of five hours per week, $12.00 per month, or $144.00 per year, in addition.

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SCHOLARSHIPS

AGRICULTURAL

The Seventh State Legislature passed an act providing for two scholarships in practical agriculture at Oklahoma A. and M. College, each of the value of $100.00 yearly for two years, to be awarded to boys in each of the seventy-seven counties of the State who make the first and second highest general averages in examinations to be conducted in each county under the supervision of the county superintendent, all papers to be sent to the College for grading. The act provides that these examinations shall be held annually, so that,

beginning with the year 1920, it is made possible for 308 students to be receiving free education from the State each year.

OKLAHOMA BANKERS' ASSOCIATION

Every year, to the highest scoring club boy in each of the five banking districts of the State, a scholarship in Oklahoma A. and M. College, of the value of $200.00, is offered, the bankers of each group paying for the scholarship awarded to the winner in their district.

JEROME KATZ MEMORIAL

Jake Katz, a merchant of Stillwater, has founded five annual scholarships of $100.00 each for students in the four-year courses at Oklahoma A. and M. College, in memory of his deceased son, Albert Jerome Katz. These scholarships will be available in September, 1920, will be payable in nine monthly installments each, and will be awarded by the President to needy students.

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HONOR STUDENTS FOR 1918-1919

The honor students of the Senior class for the session of 1918-19 were as follows:

School of Education.—Leona Sieglinger, 93 7-10.

School of Home Economics.—Maude Staedelin, 89 6-21.

School of Science and Literature.—Carolyn Cantwell, 85 9-13.

School of Commerce and Marketing.—Gladys Madigan, 89 4-5.

Bob White won the Otey prize, given by Financial Secretary M. J. Otey, to the student who overcame the most serious difficulties in his college course.

PRIZES IN PUBLIC SPEAKING

State Oratorical.—First prize, $25.00, Bishop Clothing Company, Stillwater, won in 1919 by E. Ray Skinner; second prize, $10.00, Smith's studio, Stillwater, won in 1919 by G. J. Williams.

Intercollegiate Debate.—First prize, $15.00, Peck Bros. and Miss Nora Talbot, won in 1919 by Martyn McMillan; second prize, $10.00, Mr. M. J. Otey, Stillwater, won in 1919 by Frank Martin; third prize, $5.00, Dr. F. B. Olentine, Chicago, won in 1919 by R. C. Goodwin.

Freshman Declamation.—First prize, $10.00, Katz Department

store, Stillwater, won in 1919 by Edith Butler; second prize, $5.00, Tiger Drug store, Stillwater, won in 1919 by Lela Smith.

Freshman Extempore Speaking.—First prize, $10.00, First National bank, Stillwater, won in 1919 by Marcus Hinson; second prize, $5.00, Stillwater Furniture Company, Stillwater, won in 1919 by Tillman McDonald.

SCHOOLS OF INSTRUCTION

Under the present organization the studies of the College are grouped into the following schools:

1. The School of Agriculture.
2. The School of Engineering.
3. The School of Home Economics.
4. The School of Science and Literature.
5. The School of Education.
6. The School the Commerce and Marketing.
7. The School of Veterinary Medicine.

Each school is in charge of a Dean and a faculty of teachers. Students select one of these groups in which to do their work.

THE SCHOOL OF AGRICULTURE

HENRY G. KNIGHT, *Dean*

COURSES OF INSTRUCTION

The following courses of study, designed to meet the requirements of students of the various classes, have been organized in the School of Agriculture.

GENERAL COURSE IN AGRICULTURE

This course of study leads to the degree of Bachelor of Science (Agriculture) .and offers scientific training in agricultural bacteriology, agricultural chemistry, agricultural economics, agricultural education, agricultural engineering, agricultural journalism, agronomy, animal husbandry, dairying, horticulture, entomology, poultry husbandry and veterinary science. In addition to these specified subjects relating to agriculture, it embraces a general training in chemistry, botany, bacteriology, zoology, English and other branches which have an application in agriculture, and which are designed to give a broad, general education for the man who wishes to devote his time and talent to agricultural pursuits, investigations or teaching.

The field is so broad, however, that it is impossible for any stutend in four years to take advantage of all the lines of work offered. As will be seen in the curriculum of studies, the work in the Freshman and Sophomore years is very much the same for all students, giving a maximum of the necessary fundamental studies. The Junior and Senior years, however, give considerable liberty for selection and for elective studies in the particular branch of agricultural science in which the student may be interested.

TEACHER TRAINING

The Smith-Hughes Act passed by Congress provides funds for secondary vocational education. The opportunities offered for teachers of vocational subjects are unparalleled. Already a demand for trained teachers is noted which, it seems, can not be met

unless more students prepare themselves to teach these subjects. The course in General Agriculture for Teachers, given on another page, meets the requirements for teachers of Vocational Agriculture under the provisions of the Smith-Hughes Act.

To meet the present emergency, students who complete other courses in the School of Agriculture, and who present 13 hours of work in Education, of which at least 6 hours must be prescribed courses in agricultural education, will be eligible to teach in secondary schools of the State receiving Smith-Hughes support for vocational agriculture. (This is subject to change by the State Board of Vocational Education.)

SECONDARY VOCATIONAL AGRICULTURE

This course is designed for young men from the farms of Oklahoma who have not had the time nor the inclination to take a regular course in the high schools of the State, to be followed by a four-year course in scientific agriculture, yet who desire a training in the practical application of the science of agriculture.

The course herein offered is designed to lead students back to the farms of the State with the knowledge of the best practices and with a vision of the possibilities in their chosen vocation. With this end in view, the work is organized on a real practice and production basis as far as circumstances and conditions will permit. The course covers two years' work of nine months each.

The Legislature has provided two scholarships of $100.00 for each county, each to run two years, and is made available for students taking this course. For information, write to the Registrar, or see your county agent.

SHORT COURSES IN AGRICULTURE

TWELVE WEEKS' COURSE IN AGRICULTURE

This course is designed for young men from the farms of Oklahoma who have not the time nor the inclination to take a regular course in the high schools of the State, to be followed by a four-year collegiate course in agriculture, or even the Secondary Vocational Agriculture course, yet who desire a training in the practical application of the science of agriculture to the business of farming. It provides a course of study that will give the student a maximum

of the actual studies relating to farm and livestock work, and in addition gives as much of th egeneral studies as may be most useful in training young men to become leaders in their chosen calling on the farms of the State, or as teachers of agricultural subjects in the rural schools of the State, if the essential preparatory studies have been taken before entering the course.

The course of study includes work in agricultural chemistry, agricultural economics, agricultural engineering, field crops, soils, animal husbandry(including stock-judging, and a study of the feeding and care of animals, dairying, horticulture, farm management, poultry husbandry, animal diseases and entomology.

The outline of studies is such as will impart the greatest amount of directly useful knowledge that can be acquired in a brief length of time. The course of study includes three terms of four weeks each, or a total of twenty-four weeks, for two years.

For further details dsecribing this course, application should be made to the Dean of Agriculture, Stillwater, Oklahoma.

FARMERS COURSE IN AGRICULTURE

The Farmers Course in Agriculture is designed to meet the growing demand on the part of the busy farmer who is actually engaged in the work on his farm and who can not avail himself of a college course, yet desires the latest information on the various phases of work on his farm. The course will consist of addresses, demonstrations and exercises covering a period of one week, designed to give busy farmers the most useful instruction and practice in the various phases of field crop culture, stock-feeding and management, horticulture, dairying and kindred subjects in the shortest possible time and at a season when they can be away from home for a brief period.

The course will be held in August, 1920, and is given under direction of the Extension Division, assisted by the teaching Faculty and Experiment Station staff of the A. and M. College, and by other speakers and specialists. Programs may be had upon application to the Director of Extension, A. and M. College, Stillwater, Oklahoma.

SIX WEEKS' DAIRY COURSE

November 8 to December 18, 1920

The six weeks' dairy course is for the training of two classes of

students who can not attend the regular agriculture course of four year, but who still want a specialized training.

1. In Dairy Production and Management of Dairy Cattle.
2. In Dairy Manufacturing.

The Dairy Production Course will include a study of breeds and breeding of cows. The feeding and management of cows and calves, and modern barn practice, record-keeping and advanced registry testing. The milking of cows and modern methods of handling and marketing milk is also included.

A large, new dairy barn, with modern equipment, and stocked with representative cows of several broods, is available for a thorough study of a dairy farm.

The course in Dairy Manufacturing includes complete instruction in Butter-making, Ice Cream-Making and the Pasteurization of Market Milk. Cottage Cheese-Making, Commercial Buttermilk-Making and modern tests for dairy products are included in the course.

A modern commercial creamery is operated throughout the year. This includes machinery and apparatus for manufacturing all dairy products by approved methods and appliances.

The course includes special lectures as well as textbook study on all subjects, laboratory tests, and daily practice work in the creamery.

Write for special circular to the Dean of Agriculture, A. and M. College, Stillwater, Oklahoma.

ONE WEEK'S SPECIAL DAIRY COURSE

December 27, 1920, to January 1, 1921

This course of one week is to provide an opportunity for ice cream-makers, butter-makers and market milkmen, milk inspectors and creamery managers to become familiar with technical principles and facts regarding the manufacture of ice cream, butter, cream and milk, as well as to become familiar with the usual tests and methods employed in the modern factory.

The entire equipment of the Dairy Department, and other departments of the College, are at the disposal of students in the special dairy courses.

For further information, write to the Dean of Agriculture, Oklahoma A. and M. College, Stillwater, Oklahoma.

REQUIREMENTS FOR ADMISSION

FOUR-YEAR COURSES IN AGRICULTURE

The requirements for admission to these courses are stated in terms of units in common with all other regular courses in the College. The term "unit" means the equivalent of five recitations a week for one year in one branch of study in the Secondary School. Fifteen units are required for admission, an allowance of 1 credit being made, however, where an applicant has completed 14 units of work in an accredited high school. The 15th unit may be made up from the Secondary School studies offered in the College.

Applicants for admission to all courses in the School of Agriculture, except agricultural engineering, will be required to present 3 units in English; 1 in social science, including history; 1 in physice; 2 in mathematics, which shall be made up of 1 unit in algebra and 1 in plane geometry, and 8 additional units shall be elective from vocational, science, or other subjects. Requirements for admission to the course in agricultural engineering is the same as for courses in the School of Engineering.

SECONDARY VOCATIONAL AGRICULTURE

Completion of the eighth grade of common schools are required for admission to the courses in Secondary Vocational Agriculture, with the exception that students who have not completed the common school work, who show ability to handle the work, and who are at least 16 years of age, may be granted special permission to pursue this course. Students who are entered as regular students, upon completion of the course, as outlined, may have the credits applied toward entrance to the A. and M. College.

SHORT COURSE IN AGRICULTURE AND SIX WEEKS COURSE IN DAIRYING

Students to be admitted to these courses must be at least 16 years of age, and have a good, common school education. No entrance examinations are required.

FARMERS COURSE IN AGRICULTURE

Any one interested in farming, or better agriculture, is invited to attend this course. There are no examinations or entrance requirements.

ONE-WEEK SPECIAL DAIRY COURSE

This course is designed especially for those who are already in the dairy business who wish an opportunity to take a short, intensive course.

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GENERAL COURSE IN AGRICULTURE

The following outline of study represents the required and elective work in the School of Agriculture. The courses are numbered, beginning with one hundred in the Freshman year; odd numbers, as 101, represent the first semester's work in the subject, and the even numbers, as 102, the second semester's work. Subjects of the Sophomore, Junior and Senior years are numbered accordingly, two hundred for Sophomore, three hundred for Junior, and four hundred for Senior work. One hour of laboratory period is equivalent to one-third of a classroom period in estimating the number of hours per week to be taken.

The total requirements for graduation are 128 credits, exclusive of any credits in military science and physical education.

Before graduation, every student in agriculture must have had at least six months of actual farm experience satisfactory to the Dean of the school.

In the outline below, figures without parenthesis indicate hours of classwork, in parenthesis hours of laboratory work.

GENERAL COURSE

FRESHMAN YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Eng. 101, College	3		3	Eng. 102, College	3		3
Chem. 101, Inorganic	3	(4)	4⅓	Chem. 102, Inorganic	2	(4)	3⅓
Agron. 101, Field Crops	2	(4)	3⅓	Hort. 104, Vegetable Gardening	2	(2)	2⅔
A. H. 101, Market Types	1	(4)	2⅓	Bot. 106, General	2	(4)	3⅓
Pub. Spk. 101, Essentials	2		2	Dairy 102, Elements of Dairying	2	(4)	3⅓
Agri. Engr. 101, Farm Mechanics	1	(3)	2	Shop 108, Farm Carpentry		(3)	1
Physical Education		(3)		Physical Education		(3)	
Military Science		(3)		Military Science		(3)	

SOPHOMORE YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Chem. 207, Qualitative Anaylsis	1	(3)		Chem. 206, Quantitative Agricultural Chemistry	2	(6)	4
Chem. 205, Organic	2	(3)	3	A. H. 202, Breeds of Livestock	2	(3)	3
Hort 201, Fruit-Growing	2	(4)	3⅓	Ento. 202, General	3	(2)	3⅔
Zool. 207, General	2	(4)	3⅓	Bact. 202, General	2	(4)	3⅓
Bot. 201, General	2	(4)	3⅓	Agron. 204, Soils	2	(3)	3
Shop 205, Agricultural Forging		(3)	1	Military Science		(3)	
Military Science		(3)					

AGRONOMY COURSE

JUNIOR YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Agron. 303, Forage Crops	2	(4)	3⅓	Agron. 302, Soil Fertility	3	(6)	5
Bot. 303, Genetics	3		3	Hort. 304, Plant Breeding	3		3
Agri. Engr. 303, Farm Motors	2	(4)	3⅓	Agron. 304, Farm Accounts	1	(2)	1⅔
P. H. 305, Farm Poultry	2	(4)	3⅓	A. H. 306, Animal Nutrition	3		3
Electives			3	Electives			3⅓

SENIOR YEAR

	Hours		Cr.		Hours		Cr.
Agron. 401, Farm Management	2	(4)	3⅓	Agron. 404, Crop Improvement or Agron 424, Advanced Farm Management	1	(4)	2⅓
Agron. 409, Advanced Crops or Agron. 405, Advanced Soils	2	(4)	3⅓	Agri. 402, College and Station Work	1		1
Agron. 407. Seminar	1		1	Agron. 408, Seminar	1		1
Electives			8⅓	Electives			9

ANIMAL HUSBANDRY COURSE

JUNIOR YEAR

FIRST SEMESTER	Hours		Cr.
A. H. 301, Livestock Record Work	1	(2)	1⅔
Vet. Med. 309, Anatomy	2	(2)	2⅔
Bot. 303, Genetics	3		3
P. H. 305, Farm Poultry	2	(4)	3⅓
Vet. Med. 315, Physiology	3	(2)	3⅓
Agron. 303, Forage Crpos	2	(4)	3⅓
Electives			2⅓

SECOND SEMESTER	Hours		Cr.
A. H. 302, Livestock Judging	1	(4)	2⅓
A. H. 306, Animal Nutrition	3		3
Vet. Med. 310, Animal Disases	2	(2)	2⅔
Agron. 302, Soil Fertility	3	(6)	5
Electives			3

SENIOR YEAR

FIRST SEMESTER	Hours		Cr.
A. H. 401, Livestock Selection	1	(6)	3
A. H. 409, Animal Breeding	3		3
Agron. 401, Farm Management	2	(4)	3⅓
A. H. 411, Seminar	1		1
Electives			5⅔

SECOND SEMESTER	Hours		Cr.
A. H. 404, Animal Production	5		5
Agri. 402, College and Station Work	1		1
A. H. 412, Seminar	1		1
A. H. 406, Practicum		(4)	1⅓
Electives			4⅓

DAIRYING COURSE

JUNIOR YEAR

FIRST SEMESTER	Hours		Cr.
Dairy 303, Testing Milk and Its Products	1	(6)	3
Agri. Engr. 303, Farm Motors	2	(4)	3⅓
Agron. 303, Forage Crops	2	(4)	3⅓
P. H. 305, Farm Poultry	2	(4)	3⅓
Elective			3

SECOND SEMESTER	Hours		Cr.
Dairy 304, Factory Operation	2	(8)	4⅔
Dairy 306, Dairy Judging and Management	2	(4)	3⅓
A. H. 306, Animal Nutrition	3		3
Electives			5

SENIOR YEAR

FIRST SEMESTER	Hours		Cr.
Dairy 405, Cheesemaking	1	(6)	3
Dairy 407, Milk Production	2	(4)	3⅓
A. H. 409, Animal Breeding	3		3
Bact. 311, Dairy Bacteriology	2	(4)	3⅓
Dairy 411, Seminar	1		1
Electives			2⅓

SECOND SEMESTER	Hours		Cr.
Dairy 404, Market Milk and Dairy Inspection	2	(3)	3
Dairy 412, Dairy Seminar	1		1
Agri. 402, College and Station Work	1		1
Electives			10⅓

HORTICULTURE COURSE

JUNIOR YEAR

FIRST SEMESTER	Hours		Cr.
Hort. 301, Systematic Pomology	2	(4)	3⅓
Hort. 305, Canning and Handling By-Products	1	(2)	1⅔
Bot. 30, Genetics	3		3
P. H. 305, Farm Poultry	2	(4)	3⅓
Electives			4⅔

SECOND SEMESTER	Hours		Cr.
Hort. 304, Plant Breeding	3		3
Bot. 304, Plant Physiology	2	(2)	2⅔
Agron. 302, Soil Fertility	3	(6)	5
Electives			5⅓

SENIOR YEAR

FIRST SEMESTER	Hours		Cr.
Hort. 401, Commercial Pomology	2	(2)	2⅔
Hort. 405, Forestry	2		2
Bot. 305, Pathology	2	(4)	3⅓
Hort. 409, Thesis		(3)	1
Elective			7

SECOND SEMESTER	Hours		Cr.
Hort. 402, Landscape Gardening	2	(2)	2⅔
Hort. 404, History and Literature of Horticulture or Hort. 406, Forestry	3	(2)	3⅔
Agri. 402, College and Station Work	1		1
Hort. 410, Thesis		(3)	1
Elective			7⅔

POULTRY COURSE

JUNIOR YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Agron. 303, Forage Crops	2	(4)	3⅓	A. H. 306, Animal Nutrition	3		3
Bot. 303, Genetics	3		3	Agron. 302, Soil Fertility	3	(6)	5
P. H. 305, Farm Poultry	2	(4)	3⅓	P. H. 308, Incubation and Brooding	1	(6)	3
P. H. 309, Judging		(4)	1⅓	Electives			5
Electives			5				

SENIOR YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Agron. 401. Farm Management	2	(4)	3⅓	Agri. 402, College and Station Work	1		1
Dairy 407, Milk Production	3		3	P. H. 404, Research	1	(4)	2⅓
P. H. 401, Seminar	1		1	P. H. 402, Seminar	1		1
P. H. 403, Research	1	(4)	2⅓	P. H. 406, Management	2		2
Electives			6⅓	Electives			9⅔

*COURSE IN GENERAL AGRICULTURE FOR TEACHERS

JUNIOR YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Agron. 303, Forage Crops	2	(4)	3⅓	A. H. 302, Livestock Judging	1	(4)	2⅓
Vet. Med. 309, Anatomy	2	(2)	2⅔	A. H. 306, Animal Nutrition	3		3
P. H. 305, Farm Poultry	2	(4)	3⅓	Vet. Med. 310, Animal Diseases	3	(2)	2⅔
Bot 303, Genetics	3		3	Agron. 302, Soil Fertility	3	(6)	5
Edu. 203, Psychology	3		3	Edu. 316, Methods of Teaching in the High School	3		3
Electives			1⅔				

SENIOR YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Agron. 401, Farm Management	2	(4)	3⅓	Econ. 414, Rural Economics	2		2
Bot. 305, Plant Pathology	2	(4)	3⅓	Soc. Sci. 405, Rural Sociology	2		2
Agri. Edu. 403	3	(3)	3	A. H. 406, Practicum		(4)	1⅓
Agri. Edu. 421, Practice Teaching		(4)	1⅓	Agri. Edu 422, Practice Teaching.		(4)	1⅓
Electives			4	Electives			8⅓

*Students completing this course are qualified to teach agriculture in the high schools of the State receiving Smith-Hughes support.

COURSE IN AGRICULTURAL ENGINEERING

The requirements for admission for this course are the same as the requirements for admission to courses in the School of Engineering, but in addition; before a student is permitted to register for this course, he must present satisfactory credentials showing that he has performed at least 1,000 hours of farm work. Before he will be granted his degree, the student must present satisfactory credentials showing the performance of at least 400 hours work in a trade, such as carpentry, masonry, foundry, forge or machine-shop, preferably at the beginning of the Sophomore year. Likewise must credentials be secured showing at least 200 hours as tractor or steam engine operator; or, failing in this, 300 hours actual service with a threshing crew, preferably at the beginning of the Junior year. One month in the department's field engineering camp will be required either at the beginning or end of the Senior year.

AGRICULTURAL ENGINEERING COURSE

FRESHMAN YEAR*

FIRST SEMESTER	Hours		Cr.
Eng. 101, College	3		3
Chem. 101, Inorganic	3	(4)	4⅓
Math. 105, College Algebra	4		4
Agron. 101, Field Crops	2	(4)	3⅓
Shop 101, Woodwork		(4)	1⅓
Physical Education		(3)	
Military Science		(3)	

SECOND SEMESTER	Hours		Cr.
Eng. 102, College	3		3
Chem. 102, Inorganic	2	(4)	3⅓
Math. 108, Plant Trigonometry	3		3
Pub. Spk. 101, Essentials	2		2
A. H. 202, Breeds of Livestock	2	(3)	3
R. E. 103, Implement Drafting			1⅔
Physical Education		(3)	
Military Science		(3)	

*Freshman work only will be offered in 1920-21. Ohter courses indicated to give a general idea of the course.

SOPHOMORE YEAR

FIRST SEMESTER	Hours		Cr.
Math. 207, Analysics and Calculus,	5		5
Physics 201, Engineering	4	(3)	5
Agron. 303, Forage Crops	2	(4)	3⅓
E. C. 201, Surveying		(3)	1
Chem. 206, Qualitative Analysis	2		2
Military Science		(3)	

SECOND SEMESTER	Hours		Cr.
Math. 208, Calculus	5		5
Physics 202, Engineering	4	(3)	5
M. E. 204, Kinematics	2	(6)	4
Agron. 204, Soils	2	(3)	3
Military Science		(3)	

JUNIOR YEAR

FIRST SEMESTER	Hours		Cr.
C. E. 301, Applied Mechanics	3		3
Shop 301, Machine-shop		(4)	1⅓
C. E. 307, Topographical Drawing		(3)	1
Seeding Machine Design			1
M. E. 301, Materials of Machines	2		2
M. E. 307, Mechanical Laboratory		(3)	1
Harvester Design			1⅔
Shop 205, Agricultural Forging	3		1
Terracing			1
Hort. 405, Forestry	2		2
Dairy Machinery			1

SECOND SEMESTER	Hours		Cr.
C. E. 302, Mechanics of Materials	3		3
Chem. 206, Quantitative Agricultural Chemistry	2	(6)	4
C. E. 312, Hydraulics	2	(2)	2⅔
M. E. 306, Thermodynamics	3		3
M. E. 308, Mechanical Laboratory.		(3)	1
Shop 302, Machine-shop		(4)	1⅓
Agron. 304, Farm Accounts	1	(2)	1⅔

SENIOR YEAR

FIRST SEMESTER	Hours		Cr.
Bact. 202, General	2	(4)	3⅓
C. E. 303, Roads and Pavements	2		2
E. E. 403, Irrigation	2		2
Agron. 401, Farm Management	2	(4)	3⅓
Sewage Disposal			1⅓

SECOND SEMESTER	Hours		Cr.
Farm Structures 304	1	(2)	2
Automotive Machines			1
E. E. 414, Alternating Current Machines	3	(3)	4
Hort. 402, Landscape Gardening	2	(2)	2⅔
Power-Driven Machines			2
Engine Design			3

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DEPARTMENT OF AGRONOMY

M. A. BEESON, *Professor*
ADRIAN DAANE, *Assistant Professor*
D. R. JOHNSON, *Assistant Professor*
H. H. FINNELL, *Research Assistant and Station Foreman*
SHERMAN KRISHER, *Instructor in Secondary Vocational Agronomy*

The course in agronomy has been designed to familiarize the student with the principles underlying soils, crop production, farm management, and farm economics. It offers practical training in these modern fields of science, preparing students to successfully solve the problems of farm life, and fitting them for educational and research work.

The subject matter of these courses comprises the most recent

information and experimental data. While the conditions in different sections of Oklahoma are given special consideration, yet the instruction is not intended to be limited geographically.

The courses of instruction in this department are coordinated with the courses in animal husbandry, dairy husbandry, agricultural engineering, poultry husbandry, horticulture, entomology, and agricultural education. By this arrangement, and the elective allowed, the student will be able to get a comprehensive knowledge of the three large branches of agricultural science—the soil, the plant and the animal. And, too, the student has an opportunity for general farming and extension work, or he may specialize in any particular division of the Agronomy Department, as soils, crops and farm management.

The work in the department is two-fold: First, to fit young men to successfully solve problems of soils, crops and farm management, which are an integral part of every farmer's experience; second, to fit students to creditably fill positions in Agricultural Colleges and Experiment Stations, as invsetigators in governmental and State experimental work, high schools, farm managers, and extension workers.

There is a constantly increasing demand for men trained in soils, crops and principles of farm management, and every year the department is asked to recommend men for such desirable positions in colleges and experiment stations; instructors of agriculture in high schools; investigators in Federal and State experimental work, farm managers and extension workers.

The Station farm used by the Department of Agronomy consists of 160 acres of medium rolling land, well situated for experimental and demonstration work. It is well equipped with all kinds of farm machinery necessary in crop production.

The general field and experimental plats of the Experiment Station used for improving and testing farm crops and for conducting experiments in methods of soil management, afford the student excellent opportunities for study and investigation.

The large, well-equipped laboratory for soil physics and soil fertility work is maintanied for the regular use of students.

A research laboratory is well supplied with necessary apparatus for the use of the instructors and advanced students in doing research work.

The crops laboratory is well equipped with material and specimens for a detailed study of the different cereal, forage and fiber crops.

The courses in farm management and farm economics are designed to correlate the information obtained in other courses so that the student may understand the principles involved in organizing and conducting a farm as a prfoitable business. Records of 1,000 Oklahoma farms are available for use in the farm management course.

SUBJECTS

101 FIELD CROPS. Class 2 hours, laboratory 4 hours. Credit 3⅓.

A study of the characteristics, adaptation, preparation of the seedbed, culture and uses of the various cereal crops, and varieties of cotton adapted to Oklahoma conditions. The laboratory work is dcvoted largely to grain and cotton-judging, and a study of the various cereal grains and cotton.

Text: "Field Crops for the Cotton Belt", Morgan.
Requirde: All agricultural students.

204 SOILS. Class 2 hours, laboratory 3 hours. Credit 3.

A general introductory course dealing with the origin, formation, classification and physical properties of soils. Particular cmphasis is placed upon the effect of soil management on moisture, drainage, aeration, heat, erosion and alkali.

Text: "Soils", Lyon, Fippin and Buckman.
Prerequisite: Elementary Physics.
Required of all agricultural students.

302 SOIL FERTILITY. Class 3 hours, laboratory 6 hours. Credit 5.

The relation of the plant to thc soil. Influence of the plant on the natural fertility of the soil. Profitable methods of conserving fertility. Effect of different systems of farming upon the fertility and productiveness of soils. Relation of micro-organisms to fertility. Special emphasis is given to fertilizer requirements of Oklahoma soils.

Text: "Soil Fertilit and Permant Agriculture", Hopkins.
Prerequisite: Chem. 206; Agron. 204.
Required of all agricultural students.

303 FORAGE CROPS. Class 2 hours, laboratory 4 hours. Credit 3⅓.

A study of the history, development, growth, distribution, culture and uses of the forage crops. Annual and perennial grasses and forage crops, including legumes, cereals and sorghums, are studied with special reference to their culture, adaptation, production and uses. In the laboratory a study is made of the plant and the varieties of different seeds, with special reference to their identification, quality and purity.

Text: "Forage Crops", Pipcr.
Prerequisite: Agron. 101.
Required of all agricultural students.

304 FARM ACCOUNTS. Class 1 hour, laboratory 2 hours. Credit 1⅔.

Farm inventories, stock and crop accounts; complete farm accounts. Special emphasis is given to the interpretation of the accounts and their application to the organization and management of the farm.

Required of all agronomy students.
Elective for all students.

305 COTTON PRODUCTION, GRADING AND CLASSING. Class 1 hour, laboratory 4 hours. Credit 2⅓.

Varieties, methods of selection, planting, culture, harvesting and marketing of the cotton crop and cottonseed products will be considered in detail. The laboratory work consists of testing fibers and grading and classing, together with field work.

401 FARM MANAGEMENT AND ECONOMICS. Class 2 hours, laboratory hours. Credit 3⅓.

The purpose of this course is to assemble and correlate the principles involved in the successful management of a farm. Study is made of points to be considered in the selection of the farm, types of farming, planning and arrangement of the farmstead, the fields and crop rotations, the relation of the size of the farm to profits; the relation of livestock to crop production; permanent agriculture; distribution, labor and finance, receive consideration.

Text: "Agricultural Economics", Taylor.
Prerequisite: Agron. 101, 204, 302.
Required of all agricultural students.

404 CROP IMPROVEMENT. Class 1 hour, laboratory 4 hours. Credit 2⅓.

This is an advanced course in cereal and forage crops dealing with factors affecting management, improvement and breeding. The laboratory is partly devoted to the collection, reading and classification of material concerning cereal and forage crop improvement. When conditions permit, the laboratory work consists chiefly of actual work on the principal crops that are being improved on the Station farm.

Prerequisite: Agron. 404 or Agron. 424, of agronomy students.

405 ADVANCED SOILS. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Physical or chemical study of special soils in which the student is specially interested. Centrifugal analysis, time and depth of cultivation, moisture and temperature, surface washing and prevention, determination of limiting elements of plant food on the home farm, effect of various fertilizers, as determined by pot and field experiments. Study of fertility experiments at other Stations.

Prerequisite: Agron, 101. 204, 302, 303.
Required: Agron. 409 or Agron. 405 of agronomy students.

407 SEMINAR. Class 1 hour. Credit 1.

Reports, discussions and papers will be called for on literature and scientific research along agronomic lines.

Prerequisite: Agron. 101, 202, 302.
Required of all agronomy students.

408 SEMINAR. Class 1 hour. Credit 1.

Continuation of Agronomy 407.
Prerequisite: Agron. 101, 202, 302.
Required of all agronomy students.

409 ADVANCED CROPS. Class 2 hours, laobratory 4 hours. Credit 3⅓.

This course takes up more advanced work in the production of the important crops throughout the United States. Emphasis will also be placed on more detailed study of the various plants that go to make up the cereal and forage crops of the United States.

Prerequisite: Agron. 101, 302, 303.
Required: Either Agron. 409 or Agron. 405 of agronomy students.

423 COMMERCIAL GRADES AND DISTRIBUTION OF FARM CROPS. Class 1 hour, laboratory 4 hours. Credit 2⅓.

Study is made of the methods of inspecing, grading, storing and distributing of grain. In the laboratory a study is made of the commercial grades of corn, wheat, oats and hay.

Prerequisite: Agron. 101.

Elective for agricultural and commerce and marketing students.

424 ADVANCED FARM MANAGEMENT. Class 1 hour, laboratory 4 hours. Credit 2⅓.

Further study of organization and field management, and a study of the actual farms over the State, noting the arrangement of fields, and obtaining data on the farm, including labor, income and cost of production.

Prerequisite: Agron. 401.

Required: Either Agron. 424 or Agron. 404 of agronomy students.

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DEPARTMENT OF ANIMAL HUSBANDRY

W. L. BLIZZARD, *Professor*
CARL P. THOMPSON, *Associate Professor*
W. T. MAGEE, *Assistant Professor*
A. E. DARLOW, *Instructor in Secondary Vocational Animal Husbandry*
FRED BAYLISS, *Herdsman*
E. R. JONES, *Herdsman*
D. CARPENTER, *Herdsman*
LEE THOMAS, *Herdsman*
C. CARPENTER, *Herdsman*
A. E. BASTION, *Farm Foreman*

The Department of Aninmal Husbandry gives instruction in all lines of practical and theoretical work which deal with judging, selecting, breeding, feeding, development, care and management of the various market and breed types of farm animals. The livestock industry in Oklahoma is the most important industry in the State, and for this reason the department is attempting to supply adequate instruction to meet the demands for work of this character.

EQUIPMENT

The equipment in the form of flocks and herds, barns and outbuildings, land and lots is rather complete. These make up the laboratories for this department. That the herds and flocks contain animals of unusual merit is shown by recent winnings at the best livestock shows in the country. A steady improvement in the livestock is being made.

The books in the libraries of the College, Experiment Station and department assist the students greatly in securing authentic information about livestock affairs. The department receives regularly copies of all the prominent livestock papers and periodicals. Special effort has been made to secure a complete list of herdbooks and animal husbandry reference literature. The material at hand

enables students to become specialists in many lines of the animal industry.

COURSES

Judging and selection is one of the main factors of the livestock work. The instruction is given with the idea that a great deal of good practice makes a proficient judge. Much time is given to work with the animals at the barns and in the judging pavilion. The score card method is used at first. In this way every point that affects the value of the animal is discussed in detail. Different breeds and types have different score cards, and by the use of all these cards students become proficient in the use of the score card. The comparative system consists in placing a class of animals in order of merit. Three or four or more animals are used as a class. Fifty percent is given to perfect placing and 50% for correct reasons for placing. The Senior and postgraduate students are trained in judging so that they may, upon completing the course, assist in judging at the various county and state fairs.

Breeding, feeding and management are important courses of the instruction. Several breeding experiments are in progress at the Experiment Station. Students work out the details of the experiments and thereby become acquainted with the fundamental principles governing this science. Senior students are required to spend four hours each week throughout the year in feeding the hundreds of head of livestock at the College. The feeding work is carefully supervised by the best trained instructors and herdsmen.

Livestock management is one of the principal courses on the schedule. Students are taught that good management is more necessary than theories and fancies.

The main aim of the work given the student is to train him to fill some of the fields in which there is a great demand. A combination of college training and practical experience works well in making the best men. Colleges and experiment stations, Government agencies, farmers, merchants and all commercial agencies that buy and sell the farmer's produce, need men trained as this College is doing.

BEEF CATTLE

The beef cattle section of the Animal Husbandry Department is represented by three breeds, the Hereford, Shorthorn and Angus.

Good representatives of each breed are maintained, and the course of study is so arranged as to give the student practical instruction in selection, feeding, breeding, marketing, care and management. In addition to the breeding herd, the College maintains a steer herd. It is maintained because it is much easier to keep steers in high condition throughout the year, as there is a tendency to make non-breeders of breeding cattle by keeping them in the high condition required for the best instruction work. The recent winnings of the cattle show that the present equipment is exceedingly good.

DAIRY CATTLE

The livestock equipment in the dairy section consists of registered Jerseys and Holstein-Friesians of high quality. Some of them produced as much milk and butterfat as any in the State. Daily records of about forty pounds of milk and two pounds of butterfat for about six months are common among the animals of the Rose Fern Lad Jersey family. Yearly records are kept in every case. It is planned to have one other breed well representd in the College herd before another year has passed. There has been a larger increase in value per head of dairy cattle in Oklahoma during the past year than any other class of livestock. More attention will be given to selecting and producing dairy cattle. Numerous lots and pasture land of several hundred acres is used in the outdoor management of the herd.

HORSES

The horse section of the Animal Husbandry Department is represented by two breeds. Among these are good representatives of the Percherons and Standard-breds. In the collection of Percheron mares some excellent specimens are found. The Standard-breds are also represented by good individuals. This collection of horses was established some time ago, and with the individuals that have been added to it gives the student an excellent opportunity to receive some real practical work with horses.

SHEEP

The equipment for sheep consists of a barn and two silos, valued at $2,500.00, besides several moderate-sized pasture fields. The breeding flocks total about one hundred select individuals. All sheep are owned by the Experiment Station, and are used in the cross-breeding experiment that was started in 1909. Purebred

flocks of Shropshires, Dorsets, American Merinos and Rambouillet are maintained and afford excellent material for instruction in th types and breeds of sheep in connection with the work in practica sheep-judging. Thorough courses are offered in the study of mai ket types and breed types of sheep, together wiht special sheep se lection, production and management.

SWINE

The collection of swine outnumbers that of any other section o the Animal Husbandry Department. Several breeds are repre sented. There are more Duroc Jerseys than any other breed. A number of Poland Chinas, Berkshires and Hampshires are kept About fifty grade hogs are used, mainly for experimental purposes In all, the number of swine on hand ranges from 175 to 200.

SUBJECTS

101 MARKET TYPES OF LIVESTOCK. Class 1 hour, practice in judging 4 hours. Credit 2⅓.

This course consists of a study of the market types, classes and grades of horses, cattle, sheep and swine.

Text: "Types and Market Classes of Livestock", Vaughn.

202 BREEDS OF LIVESTOCK. Class 2 hours, practice 3 hours. Credit 3

Characteristics of each breed of horses, cattle, sheep. swine and jacks are considered at length. Each breed is discussed with reference to its origin history, development and adaptation to American conditions. Much emphasis is put on the practical work in judging representatives of the various breeds according to the standards set by the show ring.

Text: "Types and Breeds of Farm Animals", Plumb.

301 LIVESTOCK RECORD WORK. Class 1 hour, laobratory 2 hours Credit 1⅔.

A study of the systems of livestock registration, the use of herd books, the tracing of pedigrees, and the leading blood lines of horses, cattle, sheep and swine.

Prerequisite: A. H. 101, 202.

Text: Herd Record Books.

302 LIVESTOCK JUDGING. Class 1 hour, practice in judging 4 hours Credit 2⅓.

A practical course aimed to train the student to become proficient in live stock judging. The first part of the work consists of the use of the score card as applied to the different types and breeds. The major portion of the work is done by the method of comparative judging, using rings of from three to five animals.

Prerequisite: A. H. 101, 202.

Text: "Judging Farm Animals", Plumb.

306 ANIMAL NUTRITION. Class 3 hours. Credit 3.

Principles of animal nutrition; composition and digestibility of various feeds; balanced rations; economical feeding of animals for various purposes

Text: "Feeds and Feeding", Henry and Morrison.

401 LIVESTOCK SELECTION. Class 1 hour, practice in judging 6 hours. Credit 3.

This course deals with the judging of market classes as well as the different breeds of purebred stock. During the work of the semester, occasional trips are made to the best livestock farms of the State, where the students have an opportunity to judge and to observe the management of herds and flocks. Students are urged to attend county and state fairs to observe the judging of livestock.

Prerequisite: A. H. 101, 202, 302.

Required of students who are candidates for judging teams.

Text: Assigned references.

404 ANIMAL PRODUCTION. Class 5 hours. Credit 5.

Studies of the most practical and scientific methods of producing, feeding and marketing livestock.

Prerequisite: A. H. 101, 202, 306.

Text: "Productive Horse Husbandry", Gay; "Productive Swine Husbandry", Day; "Sheep Farming", Craig.

406 PRACTICUMS—PRACTICE IN FEEDING AND HANDLING LIVESTOCK. Laboratory 4 hours. Credit 1⅓.

Prerequisite: A. H. 301, 306.

Practical feeding and management of horses, beef cattle, dairy cattle, sheep and swine is given in the barns, and each student is required to do the scheduled amount of this kind of work. Drill is given in grooming, feeding, care, management, fitting and training for show and exhibition purposes. The aim of the course is to aid the student to become a thoroughly practical and expert stockman.

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DEPARTMENT OF DAIRYING

A. C. BAER, *Professor*
A. D. BURKE, *Assistant Professor*
H. E. DOTY, *Foreman of Factoyr*
L. F. FRAZIER, *Assistant in Cow-Testnig*
J. D. POLLARD, *In Charge of Office*

The dairy industry in Oklahoma is firmly established, and much progress has been made in getting better and more cows. Breeders of dairy cattle are steadily improving their herds. Manufacturers of dairy products are installing modern machinery and building better factories.

New dairy legislation has resulted in improving conditions of production and marketing milk and cream.

Students and graduates will have unusually good opportunities in dairying for many years. The breeding of dairy cattle will offer unlimited advantages, and many students will engage in dairy farming. The market milk industry as well as the ice cream and creamery industry will demand technically trained men.

The courses in dairying are planned to give students a general knowledge of the subjects as well as specialized technical training in the management of dairy herds and milk production, special train-

ing and experience in butter-making, ice cream-making, cheese-making, the handling of market milk and various by-products.

The facilities for instruction include a new, modern $20,000.00 dairy barn, completely equpiped and stocked with high-class dairy cattle of several dairy breeds, as well as a large milking herd.

The Creamery Building is equipped with modern, sanitary machinery and apparatus for manufacturing butter, ice cream, cottage cheese and buttermilk on a commercial scale. Market milk equipment for bottling milk and pasteurizing milk in the bottle is in daily use to supply the city of Stillwater with dairy products. A retail milk delivery wagon covers the entire city daily.

The farm dairy-room and laboratories are well equipped for the teaching of students in all courses.

The activities of the department include the teaching of students in the regular and short courses, the commercial operation of the creamery and market milk departments for experimental and reserach work, as well as for practical teaching, and the operation of a dairy farm for the breeding of dairy cattle and for the production of milk. The department also has charge of official advanced registry and register of merit testing of purebred cows for breeders of the State. Students taking the dairy course have an opportunity to secure experinece and instruction in all the activities of the department.

SUBJECTS

102 ELEMENTS OF DAIRYING. Class 2 hours, laboratory 4 hours. Credit 3⅓.

(One hour lecture and one hour recitation.)

A general survey of the field of dairying, including a study of the secretion of milk, the Babcock test, farm butter-making, farm separators, production of sanitary milk, cow test associations, and advanced register testing.

Text: "Manual of Milk Products", Stocking.

303 TESTING MILK AND ITS PRODUCTS. Class 1 hour, laobratory 6 hours. Credit 3.

A thorough study in the use of the Babcock test. Iincludes testing of milk and cream for butterfat, calibrating of glassware and testing skimmilk, buttermilk, cheese, condensed milk and ice cream for butterfat. The lactometer and its application to the detection of adulteration, different methods of testing for acidity, fermentation tests, detection of oleomargarine, renovated butter. Tests for preservatives in different dairy products are also included.

Text: "Testing Milk and Its Products", Farrington and Woll.

304 FACTORY OPERATION. Class 2 hours, laobratory 8 hours. Credit 4⅔.

A study of modern methods of butter-making, ice cream-making, cottage cheese, including pasteurization, ripening, starters, churning and moisture con-

trol; creamery and factory organization and management; construction and accounting.

Text: "The Book of Butter", Guthrie; "The Book of Ice Cream", Fisk.

306 DAIRY CATTLE JUDGING AND MANAGEMENT. Class 2 hours, laboratory 4 hours. Credit 3⅓.

A practical course in judging breeds of dairy cattle; the use of the score card and comparative show ring judging; pedigrees and breeding methods; record-keeping and principles of dairy management.

404 MARKET MILK AND DAIRY INSPECTION. Class 2 hours, laboratory 3 hours. Credit 3.

A study of market milk and its control. Pasteurization and commercial handling of milk. Laboratory and field inspection of milk. Milk ordinances and board of health milk regulations.

Text: "The Milk Question", Roseneau; "Laboratory Guide for Market Milk", Ross.

405 CHEESEMAKING. Class 1 hour, laboratory 6 hours. Credit 3.

Modern methods of factory cheesemaking, including practical instruction in the manufacture of various kinds of cheese; construction and management of cheese factories.

Text: "The Book of Cheese", Thom and Fisk.

407 MILK PRODUCTION. Class 2 hours, laboratory 4 hours. Credit 3⅓.

A study of factors concerned in improved standards of milk production; planning and equipping of dairy barns, milk houses; method of marketing milk, and use of milking machines. Practice work in the feeding and care of cows and calves, and in barn management, will be offered to students.

Text: "Productive Dairying", Washburn.

409 DOMESTIC DAIRYING. Class 1 hour, laboratory 3 hours. Credit 2.

Elective for Junior and Senior girls. The care of milk and cream in the home; sanitary milk production; milk dietetics and hygiene; the use of dairy products as food; farm butter-making, and ice cream and ices.

411 DAIRY SEMINAR. Class 1 hour. Credit 1.

Each student will prepare a thesis on a dairy subject, arranged in outline form at the beginning of the semester, after consulting with the instructor. Students will be given the privilege of writing and reporting on dairy subjects of special interest to them.

Summary of certain bulletins will be required.

412 DAIRY SEMINAR. Class 1 hour. Credit 1.

Continuation of 403, second semester.

DEPARTMENT OF ENTOMOLOGY

C. E. SANBORN, *Professor*
OTIS WADE, *Assistant Professor*

The courses of instruction given by the Department of Entomology are arranged to meet—

1. The requirements of agricultural students who desire to have practical information relative to the control of injurious insects of the farm, orchard and garden.

2. Requirements of students who desire to obtain a broader scope of entomology than above mentioned, for the purpose of demonstration work.

3. Requirements of students who desire to teach entomology in public schools.

4. Requirements of students who desire to specialize in horticulture.

5. Requirements of those who desire to specialize in entomology for the purpose of preparing themselves as nursery and orchard inspectors, or for positions in other colleges and universities, or in Federal work.

Work can be taken in this department leading to a master's degree.

The Experiment Station side of entomology is a closely allied division, and much of the practical side of the work taken by students can be gained through frequent assistance in the Experiment Station work of the department.

In addition to the regular well-equipped class laboratory, there is a Station laboratory located in the Apiary Building to which students have frequent access for the purpose of becoming familiar in the most practical way with apiary equipment, insecticides, spray machinery, and with all other kinds of apparatus used for controlling insects.

SUBJECTS

202 GENERAL ENTOMOLOGY. Class 3 hours, field and laboratory 2 hours. Credit 3⅔.

A systematic study of insects, and a study of their distribution, habits and methods of development with a view of ascertaining methods of control.
Text: Sanderson.

204 SANITARY ENTOMOLOGY. Class 2 hours, field and laboratory 3 hours. Credit 3.

A brief, systematic study of insects, and a study of their life history, and the habits of forms which disseminate disease and infect the household.
Text: Herrick.

303 HORTICULTURAL ENTOMOLOGY. Class 2 hours, field and laboratory 4 hours. Credit 3⅓.

Habits and distribution of orchard and garden insects, studied in such a way as to portray the most practical methods of controlling them. Modern types of spray machinery and equipment will be studied and used in spraying as a part of the practicum.
Text: By assignment.

306 APICULTURE. Class 3 hours, field and laboratory 2 hours. Credit 3⅓.
A general course in beekeeping.
Text: By assignment.

403 ADVANCED ENTOMOLOGY. Class, field and laboratory work by assignment.
(Additional courses in advanced entomology will be given by assignment. This refers particularly to graduate students.)

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DEPARTMENT OF HORTICULTURE

F. M. ROLFS, *Professor*
FRANK B. CROSS, *Assistant Professor*
C. W. RAPP, *Assistant Professor*
BOB WHITE, *Instructor in Secondary Vocational Horticulture*
R. PERRY ROBERTS, *Gardener*

The courses offered in this department are designed to give the student a thorough knowledge of the most important lines of horticultural work. Instruction consists of lectures, recitations and practical exercises in the laboratory and field.

The facilities for instruction include lecture-rooms, reading-room, laboratory, implement house, and a practical work-room; orchards of a number of the leading varieties of fruits, plantings of vegetables, a small nursery, a cellar, greenhouse, hotbeds, and cold-frames. The department is also well equipped with tools, implements and apparatus for giving practical work.

The office, laboratory and classroom are located on the third floor of Morrill Hall. The office and horticultural reading-room are combined. The room contains a number of the leading magazines, journals and reference works pertaining to horticulture, as well as a set of Station and United States Government publications. It is itended for the use of students specializing in horticulture, to give them a broader view of the subject and to keep them in touch with current horticultural information. The laboratory is well equipped with modern apparatus for horticulture research work.

The implement shed, work-room, cellar, cold frames and propagating beds are located on the horticultural grounds. The work-room is supplied with packing-tables, workbenches, and other equipment for instructional work. The department is well equipped for giving practical instruction in the various methods of plant propagation; the study of buds and twigs of fruits and ornamental plants; a study of vegetables, fruits, nuts; the design of greenhouse structures and landscape plans; seed-testing, and storing, grading and packing of horticultural products. The cold frames and hotbeds

are of various types for home use and commercial purposes, and are used in the vegetable-forcing work.

The orchard, vineyard and garden of the Experiment Station offer practice in the pruning and training of various fruits, and also give an opportunity for comparison of the various cultural methods. The grounds, cellar and grenehouse afford ample material for laboratory and classroom work.

SUBJECTS

104 VEGETABLE GARDENING. Class 2 hours, laboratory 2 hours. Credit 2⅔.

This course includes the general principles of vegetable culture, dealing principally with the study of the home and city garden. Some attention will also be given to vegetable-forcing and market gardening. Garden soils and fertilizers as well as various cultural features will receive careful attention.

Text: "Productive Vegetable Gardening", Lloyd.

Reference: "Vegetable Gardening", Watts.

201 FRUIT-GROWING. Class 2 hours, laboratory 4 hours. Credit 3⅓.

A course designed to give the student a practical knowledge of fruit-growing and at the same time serve as a foundation work for the course in systematic pomology. It embraces a study of planting, pruning, spraying, cultivation, cover crops, frost prevention and fertilizers for orchards and small fruits. The practical work includes making of orchard plans, laying out the orchard, planting, pruning and spraying, and the identification and judging of fruits most commonly grown in Oklahoma.

Text: "Productive Orcharding", Sears.

Reference: "Fruit-Growing in Arid Regions", Paddock and Whipple.

205 FRUIT-GROWING. Class 2 hours, laboratory 2 hours. Credit 2⅔.

An elective offered principally for women. Fruit-growing as adapted to the school and home is especially studied. This course includes a study of the principles and practices of some of the most important lines of horticultural work. Attention is given to the different methods of propagation, planting, cultivating and harvesting of the different varieties of fruit most commonly grown in Oklahoma. The practice work includes the making of orchard plans, laying out the orchard, planting, pruning and spraying. The identification and judging of fruits will also receive attention.

Text: "Productive Orcharding", Sears.

Reference: "Fruit-Growing in Arid Regions", Paddock and Whipple.

301 SYSTEMATIC POMOLOGY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

A study of the origin and history of our cultivated fruits, and of the varieties best adapted to the home and commercial orchards. Trees representing the different species of our leading fruits are carefully observed, and also the influence and environment upon the behavior of the trees and on the development of their products. Practice is given in describing and identifying varieties of fruits and nuts, placing exhibits, and fruit-judging.

Prerequisite: Hort. 201.

Text: "Systematic Pomology", Waugh.

304 PLANT-BREEDING. Class 3 hours. Credit 3.

A study of the application of principles in breeding to improve our fruits and vegetables; the selection and fixing of varieties; the improvement of

plants by selection. Special attention is given to breeding for quality and disease resistance. Practical work is given in the orchard, garden and greenhouse in cross-pollination, hybridization and selection.

Prerequisite: Bot. 303.

Text: "Plant-Breeding", Bailey and Gilbert.

Reference: "Principles of Plant-Breeding", Davenport.

305 CANNING AND HANDLING OF BY-PRODUCTS. Class 1 hour, laboratory 2 hours. Credit 1⅔.

A general study of horticultural by-products and fruits and vegetables especially adapted for canning. The different methods of canning, evaporating, drying, and the manufacture of vinegar and fruit juices is studied. Buildings, machinery and apparatus necessary for successful work receive considerable attention. Practical work is given in all the fundamental principles connected with the operation of a cannery.

Theory work is given by lectures.

306 NURSERY PRACTICE. Class 2 hours, laboratory 2 hours. Credit 2⅔.

A study of methods by which plants are propagated by means of division, cuttings, layering, budding and grafting; production and care of seeds, seed-testing, bulb reproduction; exercises in the laboratory in propagating garden seeds, flowers, shrubs, forest and fruit trees; nursery practice.

Elective.

Text: "Plant Propagation", Kains.

Reference: "The Nursery Book", Bailey.

308 FLORICULTURE. Class 2 hours, laboratory 2 hours. Credit 2⅔.

A course in the cultivation and care of greenhouse and home plants, as well as a study of the annuals and perennials adapted to Oklahoma. The proper soils, planting of seeds, transplanting, making of cuttings, principles of heating and ventilating, plant diseases and insect control will receive careful attention. Problems in grouping and arranging of flowers for color harmonies while growing, as well as pleasing effects for decorating purposes, are also included in the course.

Text: "Principles of Floriculture", White.

Reference: "Manual of Gardening", Bailey.

401 COMMERCIAL POMOLOGY. Class 2 hours, laboratary 2 hours. Credit 2⅔.

A course treating of the care of fruit trees, the management of orchards and the handling of fruit. Problems of pruning, spraying, cultivating and frost prevention are studied; also the approved methods of harvesting, grading, packing, transportation, marketing, storing, and constructoin of cold storage plants. A careful study of the control measures for insect pests and fungus and bacteriol diseases are also gievn considerable attention.

Text: "Fruit-Harvesting, Marketing and Storing", Waugh; "American Fruit Culturist", Fuller.

402 LANDSCAPE GARDENING. Class 2 hours, laboratory 2 hours. Credit 2⅔.

A study of the principles involved in the planning and decorating of public grounds and the selection of ornamentals adapted for planting in Oklahoma. Practice consists in designing plans, laying out drives and walks, and planting flower beds, shrubs and trees.

Text: "Landscape Gardening", Maynard.

Reference: "The Landscape Beautiful", Waugh.

404 HISTORY AND LITERTURE OF HORTICULTURE. Class 2 hours. Credit 2.

Open only to students taking the horticultural course. A study of current horticultural literature, including a review of horticultural periodicals, bulletins and United States Government publications.

Text: "Fruit Harvesting, Marketing and Sorting", Waugh; "Bush Fruits", Card.

Reference: "The Apple", Waugh; "Peach-Growing", Gould; "Foundation of American Grape Culture", Munson.

405 FORESTRY. Class 2 hours. Credit 2.

A lecture and field course dealing with the general principles of forestry, relation of forestry to agriculture, windbreaks, shelter belts, lumbering, and conservation.

Prerequisite: Bot. 101, 102.

Text: "Principles of American Forestry", Green.

Reference: "Practical Forestry", Gifford.

406 FORESTRY. Class 3 hours, laboratory 2 hours. Credit 3⅔.

A study of the fundamental principles of forestry, together with a detailed study of the forests of Oklahoma. This course is designed to meet the needs of students who wish to specialize in forestry.

Prerequisite: Hort. 306, 405; Bot. 305.

Theory work given by lectures.

409 THESIS. Laboratory 3 hours. Credit 1.

Special subject requiring some independent investigation; results to be presented in written report.

Required of all horticultural students.

410 THESIS. Laboratory 3 hours. Credit 1.

Special subject requiring some independent investigation; results to be presented in written report. A continuation of 409.

DEPARTMENT OF POULTRY HUSBANDRY

HARRY EMBLETON, *Professor*
D. C. BROWER, *Farm Foreman*

The growing interest in the poultry industry in this State is creating a considerable demand for knowledge along poultry lines, both from the practical standpoint and from the standpoint of the poultry educator. The courses in this department are designed to meet both of these conditions.

The Jackson Poultry Law requires that a majority of the schools in Oklahoma hold a poultry and egg show during the year. This means that the teachers in the State, in order to be qualified to teach their work, should have some poultry knowledge. Our course of instruction takes this condition under consideration and makes it possible for teachers to get this necessary poultry knowledge.

There is a growing demand on the part of the boys and girls for purebred poultry and for informatoin as to what is purebred poul-

try. The course is designed to give the teacher this necessary information.

The awakening of poultry interest is countrywide, and is creating a great demand for scientifically trained poultrymen for instructional, investigational and extension work. A student having completed the course in poultry husbandry will be eligible for work of this kind, both with the State and Government.

The Poultry Department is equipped with a large administration building which includes classroom, incubator cellar, egg rooms, etc. This building is located at the plant. The plant consists of thirteen acres of land arranged with breeding and laying houses so as to get the best results. The houses consist of one long ten-pen laying house and twelve other smaller houses to use for breeding and experimental work. The brooding system consists of one larger brooder house of a 2,000-chick capacity, with several smaller houses for smaller flocks. Most of these houses are equipped with colony brooder stoves. The incubation equpiment consists of two large incubation cellars containing one 1,200-egg incubator and several smaller ones of many different makes.

The stock consists of fifteen different breeds and varieties, which are used for instructional, investigational and breeding purposes. All of the stock is trap-nested, and records of the same are available for use in the work. The capacity of the plant is 1,000 birds. At the present time the size of the flock is 800 birds.

SUBJECTS

305 FARM POULTRY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

This course considers the identification and characteristics of the principal breeds and varieties of poultry; the feeding of the farm flock, with a week's feeding practice morning and night at the farm; the comparison of the different types of incubators and brooders, poultry house construction; care of growing stock; breeding for egg-production; poultry diseases; dry picking of poultry; marketing poultry and eggs; caponizing; study of the egg; anatomy; judging poultry and eggs.

This course is outlined for teachers, and persons raising poultry on the farm. It is arranged to give the teachers a good foundation in poultry teaching for the future school work in the State, and to aid the producer to get profitable egg production.

No prerequisite.

308 INCUBATION AND BROODING. Class 1 hour, laboratory 6 hours. Credit 3.

Each student will be required to select eggs, operate a machine through an entire hatching, keep all records pertaining to the hatch, feed and care for the little chicks after they hatch out for a two weeks' period. This work comes early in the morning before 8 o'clock, and in the afternoon between 4:30 and

5:30 o'clock. Every student will be required to be at the farm morning and night at these hours, Sunday included, for five consecutive weeks.

No prerequisite.

309 POULTRY-JUDGING. Laboratoyr 2 hours. Credit ⅔.

The work in this course will consist of practical work in judging fowls by the standard set forth in the American Standard of Perfection. This is judging them purely from the fancy standpoint. In addition to judging, the question of mating pens and running of poultry shows will be taken up in connection with this work.

No prerequisite.

401-402 POULTRY SEMINAR. Class 1 hour. Credit 1.

This course will consist of the study of the most advanced poultry problems and expernmental work, and will keep in touch with the newest ideas and information obtainable for the poultry work.

406 POULTRY MANAGEMENT. Class 2 hours. Credit 2.

This course embraces the business end of the poultry flock. Figuring of incubation capacities, brooding capacities, winter laying house capacities, dry-old chick and hatching egg question, possible profits from a definite size poultry flock, the choosing of poultry farms as to their topography, location, climatic conditions, etc., to be considered. The scoring of poultry farms from the standpoint of poultry farm efficiency will be considered.

Prerequisite: P. H. 305, 308, 309, 401, 403.

408 POULTRY EXTENSION WORK. Class 2 hours. Credit 2.

In this course will be considered the psychology of poultry extension work. Both work with adults and boys and girls will be considered. Various types of instruction in order to reach different classes of people will be studied. Chart-making will be taken up and gone into thoroughly. Window displays, fair exhibits, etc., will be discussed. This course will prepare for poultry extension work along many of its branches.

403-404 POULTRY RESEARCH. Class 1 hour, laboratory 4 hours. Credit 2⅓.

Each student enrolled in this course will be given a definite, special piece of experimental work to be worked out on their own responsibility. This will give them a chance to use their initiative, imagination and poultry knowledge obtained from the previous courses. It will also give them an insight into methods of conducting experimental work.

Prerequisite: P. H. 305, 308, 309.

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DEPARTMENT OF RURAL ENGINEERING

LESLIE E. HAZEN, *Professor*
————————, *Assistant Professor*

This department concerns itself with those branches of engineering science most applicabl eto the needs of farming communities. The scope of its work is limited to those phases of engineering which are of direct importance because utilized in practice by farmers themselves. Two distinct lines of teaching are undertaken, the first being elementary courses for students specializing in other lines of agricultural activity, the second being basic courses for those desiring to train themselves for positions as agricultural en-

gineernig teachers, farm machine experts, county agents, farm managers, and general farmers. We are living in a time when a farmer's success as a producer is largely measured by his skill with machinery andn field engineering practice.

SUBJECTS

101 FARM FIELD MACHINERY. Class 2 hours, laboratory 2 hours. and report. Credit 3.

This course embraces an intensive study of the horse-drawn tillage, seeding and harvesting machinery used in the production of the more common field crops.

103 IMPLEMENT DRAFTING.

One two-hour and one three-hour drafting periods in which exercises in freehand sketching, lettering and mechanical drafts of implement parts are undertaken. Each student will prepare tracings and make blueprints for an assigned portion of a sulky plow.

201 SPRAY MACHINERY. Class 1 hour, laboratory 2 hours, and report. Credit 2.

A study of pumps, pressure regulators, spray nozzels, tanks, pressure gages and agitators for students in horticulture. Practice in the usual proceedures for adjustment and maintenance of such machinery is given.
Elective for agricultural students.

303 FARM MOTORS. Class 2 hours, laboratory 2 hours, and report. Credit 3.

A study of the working principles and operation of gas and oil engines. Special attention is paid to the modern oil engine as an economic source of power for irrigation and other heavy-duty work. Special emphasis is given to trucks and tractors.
Prerequisite: R. E. 101.

304 FARM STRUCTURES. Class 1 hour, laboratory 2 hours, and report. Credit 2.

One lecture and one drafting period per week in which the economic design of farm buildings is considered. Must be taken in conjunction with the course in farm sanitation.

306 IRRIGATION AND DRAINAGE. Class 1 hour, laboratory 6 hours. Credit 3.

The scope of the work in thi s course includes the common processes used in laying out terraces, tile drains and irrigation ditches.
Prerequisite: Trigonometry and Soil Physics.
Elective for agricultural students.

308 FARM SANITATION. Class 1 hour. Credit 1.

This is a discussion of the sewage disposal methods in vogue for country use, special emphasis being laid on the septic tank.
Prerequisite: Elements of chemistry and bacteriology.
Elective for agricultural students.

402 DOMESTIC MACHINERY. Class 2 hours. Credit 2.

This course will embrace a discussion of water supply systmes, pumps, sewing, fanning, eleavting and washing machinery, and farm shop equipment designed for home economics students desiring information on these lines.

Saturday afternoon work two or three times during the semester may be required.

Elective for agricultural and home economics students.

409 POWER-DRIVEN MACHINERY. Class 2 hours, laboratory 3 hours. Credit 3.

A study of the various power-driven machines of the farm—grinders, shellers, ensilage-cutters, threshers, irrigation pumps, and water supply systems. The installation of gearing, belting and shafting in the farm power-house.

Prerequisite: R. E. 303, 304.

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GENERAL AGRICULTURE

402 COLLEGE AND EXPERIMENT STATION WORK, ORGANIZATION AND FUNCTION. Class 1 hour. Credit 1.

This course is intended to familiarize the Senior students with the history and organization of the American Land Grant Colleges, including the Agricultural Experiment Stations and the Extension Divisions. A study is made of the strong and weak points of the institutions as compared with other institutions of higher education in the United States from the standpoint of both the undergraduate and graduate student. The amount of Federal and State aid given these institutions and its distribution into educational, research and extension lines is discussed. The further object is to familiarize the student with the lines of work being undertaken in the various Experiment Stations, and the special features tha t are made prominent in the various States. The course is designed to prepare students for entrance into College and Station work where such is desired, and to give those who are going into the more practical application of their calling upon the farm an opportunity to become familiar with the different institutions and the best means of utilizing the information available.

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DEPARTMENT OF AGRICULTURAL EDUCATION

O. M. CLARK, *Professor*
JAMES W. DAY, *Assistant Professor*

The Department of Agricultural Education is a department of the School of Agriculture recently established to offer the professional work for prospective teachers in Smith-Hughes schools of secondary grade. The work offered meets the provisions of the Federal act, and the work of the department is under the supervision of the State Board for Vocational Education.

The work of the department is confined largely to instruction in methods of teaching agriculture, practice teaching, and study of plans of organization of vocational schools, while the subject matter proper in agriculture is under the supervision of the subject matter department.

For description of four-year course of study, see table of four-year courses, preceding.

SUBJECTS

403 AGRICULTURAL EDUCATION. Class 3 hours, laboratory 3 hours. Credit 4.

Organization and development of agricultural education in the United States, with special reference to teaching agriculture in schools below college rank; selection, organization and presentation of subject matter adapted to use in secondary schools.

421 AGRICULTURAL EDUCATION—PRACTICE TEACHING. Practice 4 hours. Credit 1⅓.

Development of lesson plans and methods in secondary education; observation and practice teaching, with full charge of classroom under competent supervision.

Prerequisite: Edu. 316.

Required of all students preparing to become "Smith-Hughes" teachers of agriculture. Not to be taken before the Junior year.

422 AGRICULTURAL EDUCATION—PRACTICE TEACHING. Practice 4 hours. Credit 1⅓.

This course is a continuation of Agricultural Education 421.

Prerequisite: Agricultural Education 421.

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DIVISION OF VOCATIONAL AGRICULTURE

(Non-Collegiate)

JAMES W. DAY, *Principal*
SHERMAN KRISHER, *Instructor in Agronomy*
A. E. DARLOW, *Instructor in Animal Husbandry*
BOB WHITE, *Instructor in Horticulture*

The following vocational courses are offered by the School of Agriculture:

1. Secondary Vocational Agriculture, two years.
2. Short Course in Practical Agriculture.
3. Farmers' Course in Agriculture.
4. Six Weeks' Regular Dairy Course.
5. One Week's Special Dairy Course.

SECONDARY VOCATIONAL AGRICULTURE (Two Years)

This course is planned for students who have completed the eighth grade of the common schools, and is designed to fit the student upon the completion of the course for diversified farming as may be satisfactorily practiced under Oklahoma conditions. The course can not be considered in any sense a specialized course. Enough of the vocational subjects, such as livestock, crops, soils, dairying, etc., is included to give the student reasonable proficiency. The foundations are laid, and it is believed that the interest of the students will be stimulated to continue in their chosen specialties.

Specialists will handle the classes in every case, and simila opportunities for the use of laboratories, greenhouse, livestock an farms will be given to students in this course as in the regular Co lege courses. The course is intensely practical, and its success i assured.

VOCATIONAL AGRICULTURE

OUTLINE OF COUSRE

FIRST YEAR

FIRST SEMESTER

	Cl.	Pr.	High School Units
English 11	5		.500
General Science 11	2	(4)	.500
Agronomy	2	(4)	.400
Livestock 11	2	(4)	.500
Woodwork 11		(4)	.200
Physical Education		(3)	.300
Military		(3)	.300

SECOND SEMESTER

	Cl.	Pr.	High Schoo Units
English 12	5		.500
General Science 12	2	(4)	.500
Agronomy 12	2	(4)	.400
Vegetable Gardening 12	2	(4)	.400
Forge 12		(4)	.200
Military		(3)	.300

SECOND YEAR

FIRST SEMESTER

	Cl.	Pr.	High School Units
English 21	4		.500
Arithmetic 21	4		.500
Dairying 21	2	(4)	.400
Fruit-Growing 21	2	(2)	.400
Farm Structures 21		(2)	.125
Military		(3)	.300

SECOND SEMESTER

	Cl.	Pr.	High School Units
English 22	4		.500
Farm Accounts and Management	2	(4)	.400
Poultry Husbandry 22	2	(2)	.375
Entomology 22	2	(2)	.375
Farm Machinery 22	2	(2)	.375
Livestock 22	2	(4)	.400
Military		(3)	.300

SUBJECTS

AGRONOMY

12 AGRONOMY. Class 2 hours, laboratory 4 hours.

Practical lessons will be given in harvesting, storing, seedbed preparation, planting and cultivating the leading cereal and fiber crops of Oklahoma. Much time will be given to grain-judging, cotton-judging, seed selection, seed-testing and treatment for smut.

Text: "Productive Farm Crops", Montgomery.

21 AGRONOMY. Class 2 hours, laboratory 4 hours.

Practical lessons will be given in seedbed preparation, planting, cultivating, harvesting and storing the leading forage crops of Oklahoma. Laboratory work will consist of field observations, seed selection and seed-testing.

Text: "Productive Farm Crops", Montgomery.

11 AGRONOMY. Class 2 hours, laboratory 4 hours.

Attention will be paid to the fundamental principles underlying soil management; study will be made of how plants feed and grow; properties of the soil; plant food in the soil; conservation of soil fertility; crop rotation; barnyard manure; humus; fall plowing and testing soil for acidity.

Text: "Soils and Soil Fertility", Whitson and Walster.

22 FARM ACCOUNTS AND MANAGEMENT. Class 2 hours, laboratory 4 hours.

Simplified methods of keeping farm accounts and records will be given, including stock and crop accounts, expenses and receipts, which will enable the farmer to determine his income. Study is made of points to be considered in the selection of the farm, types of farming, planning and arrangement of the farmstead, the fields and crop rotations. Special emphasis is laid on the principles underlying successful management of the farm business in order to receive the greatest continuous profit from the farm.

Text: "Simplified Farm Account Record Book", Hoke and Beeson; "Farm Management", Andrew Bass.

ANIMAL HUSBANDRY

11 LIVESTOCK. Class 2 hours, judging 4 hours.

This course is intended to give the student an insight into the business of judging animals and by actual practice to acquaint him with the good points of the various classes of livestock. The course is somewhat general. Some time will be given to market types, and a short study will be made of the production of correct types of animals.

No text.

22 LIVESTOCK. Class 2 hours, judging 4 hours.

This course gives the student a training in breed types of animals. The student studies the history of our important breeds of animals, and with the good livestock of the Animal Husbandry Department before him he gets acquainted with the types and characteristics of the more important breeds.

Text: "Animal Husbandry for Beginners", Plumb.

DAIRYING

21 DAIRYING. Class 2 hours, laobratory 4 hours.

An elementary course in dairying, including the testing of milk and cream by the Babcock test, the operation of cream separators and farm churning of butter, cottage cheese and ice cream-making; a study of dairy cows, their feeding and management, and the production and handling of market milk.

Text: "Dairy Farming", Michels.

ENTOMOLOGY

22 ENTOMOLOGY. Class 2 hours, laboratory 2 hours.

Instruction will be given in lectures, consequently no textbook will be required. The habits of injurious and beneficial insects will be explained. Methods for controlling the injurious forms will be tested in practice as far as convenience will permit. Methods for developing beneficial forms will be taught. Primary practice in beekeeping will be given.

HORTICULTURE

12 HOME VEGETABLE GARDENING. Class 2 hours, laboratory 4 hours.

This course includes the general principles of vegetable culture and a study of the home garden.

21 HOME FRUIT-GROWING. Class 2 hours, laboratory 2 hours.

A course dealing with the general principles of fruit-growing, including a study of cultural requirements, propagation, and the relative importance of the different fruits for home use.

FARM MECHANICS

21 FARM STRUCTURES. Shop practice 2 hours.

Study of various types of buildings for farm use—dwellings, barns, hog houses, chicken houses, silos, etc. Drawings examined on types studied, and structural details mastered. Models examined on College farm.

22 FARM MACHINERY. Class 2 hours, laboratory 2 hours.

This course consists of an elementary study of the construction of and best methods of operating the various farm implements used in seedbed preparation, cultivation, seeding and harvesting. A study is made of the various power-driven machines on the farm—the grinder, sheller, ensilage-cutter, tractor thresher, lighting plants and home water supply systems.

POULTRY

21 POULTRY. Class 2 hours, laboratory 2 hours.

The work in this course will cover all phases of poultry work necessary for practical poultry-raisers, either on the farm or in town. A study of breeds and types will be made from the utility standpoint. Feeding, incuabtion and brooding, housing, poultry diseases, marketing of poultry and eggs, caponizing, picking and killing, and study of the egg will be considered. Special stress will be put upon factors which deal primarily with egg production.

MISCELLANEOUS

11, 12, 21, 22 ENGLISH.

Same as in non-vocational courses (See descrpition under courses in Secondary School.)

11, 12 GENERAL SCIENCE. Class 2 hours, laboratory 4 hours each.

In Vocational Agriculture, Trades and Vocational Home Economics, main part of content the same for all. Laboratory.—Elementary physics, chemistry and biology. Unity of course psychological rather than logical. Limited to applied science as much as possible.

12, 22 FORGE. Shop practice 3 hours each.

First blacksmithing—heating, shaping and welding. Tempering and hardening of steel. Pipefitting and drillpress work. Covered in lectures and practice. No. 12 is the same as 22 in non-vocational courses.

For description of other courses, see courses offered in the Secondary School.

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SHORT COURSE IN AGRICULTURE

The Short Course in Agriculture, which has proved to be a very popular course with a certain class of students, will be continued. The course as now outlined consists of two years' work of twelve weeks each.

Each year's work is divided into three terms of four weeks each. Each term's work is complete in itself, and students may enter at the beginning of any term, but they are urged to take the full course, especially since the second year's work is advanced work, and students who have not completed the whole of the first year's work may find difficulty in carrying it.

This course is designed for young men from the farms of Oklahoma who have not the time or the inclination to take a regular course in the high schools of the State, to be followed by a four-year course in scientific agriculture in this institution, nor yet the time to take the regular vocational course, yet who desire a training in the practical application of the science of agriculture to the business of farming. It provides a course of study that will give the student a maximum of the agricultural studies relating to farm and livestock work, and in addition gives as much of the general studies as may be most useful in training young men to become leaders in their chosen calling on the farms of the State.

The entire equipment of the College—the teaching force, the library, and the results obtained in experimental work—are at the service of the students of the Short Course.

There are no examinations to be passed for admission to this course. The prospective student must be at least 16 years of age, and must have had training equivalent to a good, common school eductation.

WRITE FOR INFORMATION

For illustrated circular giving full details concerning the Short Course, write the Secretary of the A. and M. College, Stillwater, Oklahoma.

SHORT COURSE IN AGRICULTURE—COURSE OF STUDY

FIRST YEAR

	Hours Rec.	Lab.
Field Crops 1	6	8
Stock-Judging 1	6	8
Agricultural Chemistry 1	4	
Shop 1		8
Gymnasium		2

	Hours Rec.	Lab.
Vegetable Gardening	6	4
Farm Dairying 1	4	8
Farm Poultry 1	4	8
Library Practice 1		4
Gymnasium		2

	Hours Rec.	Lab.
Soil Physics 1	6	8
Farm Machinery 1	6	8
Bookkeeping 1		8
Forestry and Landscape Gardening 1	4	
Gymnasium		2

SECOND YEAR

	Hours Rec.	Lab.
Fruit-Growing 1	6	6
Dairy Management 1	6	4
Soil Fertility 1	6	
Prices Markets and Credits 1	3	
Vet. Science 1	4	6
Gymnasium		2

	Hours Rec.	Lab.
Field Crops 2	6	4
Breeds and Breeding 1	3	6
Farm Motors 1	6	8
Bacteriology 1	6	
Gymnasium		2

	Hours Rec.	Lab.
Animal Production 1	3	6
Poultry-Judging 2	6	4
Shop 2		8
Insects and Their Control 1	3	
Farm Management 1	5	
Rural Life and Institutions 1	3	
Gymnasium		2

SUBJECTS

LIBRARY PRACTICE 1. Laboratory 4 hours per week.

This course is designed to teach the student how to look up material upon

any subject in which he may be interested. Subjects will be assigned, and the material covering the subject will be located in the library, read and discussed.

SHOU 1 FORGING AND IRONWORK. 8 hours per week.

Common practice in forging, building fire, drawing out, upsetting, shaping, welding, drillpress work, taps, pipefitting and soldering are taught in their practical application to farm life.

Text: "Forge Practice", Bacon.

SHOP 2 WOODWORK AND FARM CARPENTRY. 8 hours per week.

Elemental tool process used in common woodwork, care of tools, saw-sharpening, brace and rafter-cutting covered by lectures and practice on actual construction work.

Text: "Woodwork Notes", Hunt; "Carpentry", Griffith.

FIELD CROPS 1. Class 6 hours, laboratory 8 hours.

The various cereals and varieties of cotton which are adapted to Oklahoma conditions are studied in this course. The following subjects, as related to these crops, will be considered: Seedbed preparation, planting, cultivating, harvesting and storing. The fundamental principles of crop production are developed as demonstrated by practical experience. In the laboratory the work is devoted to grain-judging, seed-selection, seed-testing and the treating of seed for smut.

SOIL FERTILITY 1. Class 6 hours, laboratory 8 hours.

A practical course dealing with the underlying principles of soil management. Spceial stress will be placed on the problem of soil acidity, alkali and special crop adaptation to various types of soil.

SOIL FERTILITY 1. Class 6 hours, laboratory 8 hours.

In this course emphasis will be placed on crop rotation, green manures and barnyard manures as a means of maintaining soil fertility. The proper use of fertilizers, kind and applicability will be discussed.

FIELD CROPS 2. Class 6 hours, laboratory 4 hours.

The crops considered in the classroom are the grain sorghums and various forage crops adapted to Oklahoma. The laboratory time is taken up with the judging, selection and testing of grain sorghum heads and seeds. Weeds and weed seed, their identification, eradication and control are given considerable time.

FARM BOOKKEEPING 1. Laboratory 8 hours.

A practical course dealing with the underlying principles and methods of farm bookkeeping enabling the farmer to determine the yearly income. Special emphasis will be placed on cost of production, farm inventories, stock and crop accounts and their relation to the organization and management of the farm business in order to receive the greatest continuous profit from the farm.

STOCK-JUDGING 1. Lecture 6 hours, laboratory 8 hours.

The lecture work of this course comprises a study of all the common feedstuffs of Oklahoma, including mill feeds and factory by-products, as well as those grown on the average farm. A study of the composition of feedstuffs, balancing rations, etc., will also be made.

The laboratory work includes a thorough drill in judging horses, beef cattle, dairy cattle, sheep and swine. The student first learns the use of the score card, and later judging by comparison is given. This course will be given in a practical manner. It also should be a vaulable course, as some of the best stock in America will be used, including an opportunity to study the individuals which make up the College show herds.

Text: On breeding, Henry and Morrison; text on judging, "Judging Livestock", John A. Craig.

BREEDS AND BREEDING 2. Lecture 3 hours, laboratory 6 hours.

The lecture work will be devoted to the subject of animal-breeding. Some of the topics to be discussed are as follows: Crossing, hybridizing, grading, prepotency, linebreeding and inbreeding, and other practical subjects.

In the laboratory the judging of the different breeds ofo livestock will be given. The breed characteristics of each breed will be studied.

Text in animal breeding, "The Breeding of Animals", Mumford; "Judging Breeds of Livestock", Gay.

ANIMAL PRODUCTION 1. Lecture 3 hours, laboratory 6 hours.

The lecture work will be taken up with a study of the best practices for the production of beef cattle, dairy cattle, horses, sheep and swine. Caring, housing and practical feeding methods will also be discussed.

The laboratory work in the third period will be known as Advanced Stock-Judging. Plenty of drill in judging will be given, and from this class a student judging team will be selected to compete at the Southwest American Livestock Show, Oklahoma City, each year.

FARM MACHINERY 1. Class 6 hours, laboratory 8 hours.

Practical lessons are given in the best methods of operating the various farm implements used on the farm, including the various power-driven machines—the grinder, sheller, ensilage-cutter, thresher, light plants and house water systems.

FARM MOTORS 1. Class 6 hours, laboratory 8 hours.

A practical course is given in the operation and working principles of the various types of stationary gas and oil engines, and tractors. Special emphasis is given to the practical application of the tractor and power to farm use.

INSECTS AND THEIR CONTROL 1. Class 3 hours.

General lectures will be given pertaining to the control of insects injurious to field crops, horticulture and gardens. The lectures will either be accompanied by lantern slide illustrations or with exhibits of the pests under consideration. Control methods will be demonstrated when possible.

FARM POULTRY 1. Class 4 hours, laboratory 8 hours.

This is a practical course in poultry, aiming to fit the person to give more intelligent care to the farm flock. It will also give a good foundation to any one wanting to go into the poultry business on a specialized basis.

This course will include work upon the identification of breeds and varieties, housing, feeding, diseases, marketing, breeding for egg production, caponizing, incubation and brooding, and poultry management.

All the facilities of our large poultry plant, including twenty-seven pens of fifteen different breeds and varieties, latest model incubators, and blue-flame coal oil burning brooders, will enable the actual work being done with all these necessary poultry appliances.

POULTRY JUDGING 2. Class 6 hours, laboratory 4 hours.

Poultry-judging and preparing birds for show purposes will be discussed and the actual work done. Our fifteen varieties of poultry, representing nearly all the different types, colors and feather patterns in poultry, will assure the subject being covered in a broad way. The question of poultry management will be taken up and thoroughly gone into.

Considerable importance will be placed upon culling out the poor individuals from the egg-laying standpoint.

FARM DAIRYING 1. Class 4 hours, laboratory 8 hours.

Lectures and laboratory work on the testing of milk and cream by the Babcock test; the production, care and handling of milk and cream for city

markets and creameries; the care and ripening of cream for farm butter-making; care and operation of cream separators, and the marketing of dairy products. The course offers practical instruction in all branches of farm dairying.

DAIRY MANAGEMENT 1. Class 6 hours, laboratory 4 hours.

Lectures and practical instruction in the breeding, feeding and management of dairy cattle; keeping of records and advanced registry testing; cow-testing and purebred bull associations.

PRICES, MARKETS AND CREDITS 1. Class 3 hours.

The basis for this course is laid in a brief comparison of the principles of economics, business and marketing. In the study of prices, markets and credits, the following points are emphasized: Effect of cost of production on price, the right price, the trend of prices of agricultural products and reasons therefor; location of markets, creation of market demand, inside organization of markets, the improved use of market machinery by farmers, with special attention to cooperative marketing; use of money and credit in business; the advantages and dangers of credit; the organization of credit machinery, including description of Federal Farm Loan system.

RURAL LIFE AND INSTITUTIONS 1. Class 3 hours.

An examination of the factors underlying rural social progress and prosperity. Emphasis is given to the possibility of coordinating all the agencies of rural life. Special attention is directed to the methods by which the social advantages of city life may be brought to the farm. The farm home, consolidated school, community church, good roads, tenancy and community cooperation, are viewed in their relation to social and economic development.

VEGETABLE GARDENING 1. Class 6 hours, laboratory 4 hours.

This course includes the general principles of vegetable culture, dealing principally with the study of the home garden. Some attention will be given to vegetable and market gardening. Garden soils, fertilizers and various cultural features will also receive attention.

Text: "Productive Vegetable-Growing", Lloyd.

Reference: "Vegetable-Growing", Boyle.

FRUIT-GROWING 1. Class 6 hours, laboratory 6 hours.

The topics considered include selection of orchard sites, choosing varieties, planting, pruning, cultivating and fertilizing. The practical work includes making of orchard plans, laying out the orchard, planting, pruning and spraying. The identification of fruits will also be given some attention.

Text: "Productive Orcharding", Sears.

Reference: "Fruit-Growing in Arid Regions", Paddock and Whipple.

FORESTRY AND LANDSCAPE GARDENING 1. Class 4 hours.

This work takes up the study of the needs of Oklahoma farms for windbreaks and woodlots with special reference to their value as protection to buildings, orchards and fields, as well as their value for fuel and post purposes.

The fundamental principles involved in planting and arranging the home and public grounds will also be briefly considered.

Theory work given by lecture.

Reference: "Farm Forestry", Ferguson; "Landscape Gardening as Applied to Home Decoration", Maynard.

BACTERIOLOGY 1. Class 6 hours.

This work will consist of a series of lectures and demonstrations dealing with rural sanitation, causes and means of control of the more common infectious diseases of livestock. Current bulletins dealing with diseases of livestock will be used as references. No text will be required.

VETERINARY MEDICINE 1. Class 4 hours, laboratory 6 hours.

The object of this course will be to acquaint the student with the more common diseases of livestock. Prevention of disease and care of stock will receive more attention than treatment. Frequent clinics will be held to familiarize students with location of various troubles. Students will be given opportunity to know the current methods of vaccinating hogs, cattle and other farm animals.

Text: "Diseases of Farm Animals", Craig.

AGRICULTURAL CHEMISTRY 1. Four lectures each week.

A brief informational course intended to acquaint the student with the more important applications of chemistry to practical agriculture. The lectures are accompanied with mimeographed outlines and very numerous demonstration experiments.

THE SCHOOL OF ENGINEERING

ALFRED BOYD, Dean

In compliance with the provisions of the Morrill land grant, the teaching of engineering was begun at the Oklahoma Agricultural and Mechanical College by the establishmhent of a course in mechanical engineering. The first class was graduated in 1902. Later, courses in electrical, civil, architectural and chemical engineering were added in the order named. As far as practicable, in the development of courses, they have been kept closely related to the important industries of the State. With the growth of manufacturing, of the oil industry, the increased use of electrical power, the improvement of highways, of water supply systems, and increased interest in better buildings, the importance of having men with the proper training will be more fully recognized.

There are two large buildings on the campus devoted to the work of instruction in engineering. These are the Engineering Building and the Shop Building. The former was erected in 1912 at a cost of $75,000.00. It is three stories high, covers an area 160 by 80 feet, and is built of reinforced concrete and brick with stone trimmings. On thte ground floor are located the steam and hydraulic laboratories, the electrical laboratory, the laboratories for the testing of structural materials and road materials, storage batteries, room for surveying instruments, and office for the Dean. On the next floor are the physics laboratory and lecture-room, four other lecture-rooms for the different departments, rooms for photometry, physical apparatus, and offices for the heads of departments. On the top floor are the large drafting-rooms, classrooms and offices for several of the departments, and rooms for the storage of records.

The Shop Building is of stone and brick, and covers an area of 40 by 200 feet. For a depth of 80 feet it is two stories high, and the balance one story. It provides accommodations for the wood shop, machine-shop, forge-shop and foundry, and a toolroom.

The power plant of the College, with its steam boilers, steam engines and generators, is also used by the School of Engineering for

the purpose of making tests and familiarizing the student with the use of this class of machinery.

Mention should be made of the Engineering Society, an organization composed of students from the various engineering departments. They meet twice a month for the discussion of engineering subjects. These meetings tend to encourage a lively interest in practical engineernig work, and give the students confidence in speaking before an audience.

PROFESSIONAL DEGREES IN ENGINEERING

For information in regard to professional degrees in engineering and the conditions under which they are granted to graduates of the School of Engineering, see Requirements for Graduation.

EXPERIMENTAL WORK IN ENGINEERING

The departments of the School of Engineering are prepared to carry on in the shops, laboratories and field, research work of value to the industries of Oklahoma. Those lines of investigation are undertaken which are important in the development of the States's resources, or in adding to the health and comfort of the people of the State.

Some of the subjects of particular interest to the people of Oklahoma are the following:

The properties of petroleum and its economical use in the industries.

The utilization of natural gas.

The examination and testing of the various structural and road materials to be found in Oklahoma.

The study of the problems of water supply and sewage disposal as related to the health of rural and urban communities.

Experimental work to determine the proper methods of irrigation and drainage to suit Oklahoma conditions.

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COURSES IN THE SCHOOL OF ENGINEERING

The following outline of study represents the required and elective work in the School of Engineering. The courses are numbered, beginning with one hundred in the Freshman year; odd numbers, as 101, represent the first semester's work in the subject, and the even numbers, as 102, the second semester's work. Subjects of the Sophomore, Junior and Senior years are numbered accordingly, two hundred for Sophomore, three hundred for Junior and four hundred for Senior work. One hour of laboratory period is equivalent to one-third of a classroom period in estimating the number of hours per week to be taken.

The total requirements for graduation are 128 credits, exclusive of any credits given in military science and physical education.

In the outline below, figures without parenthesis indicate hours of class-work, in parenthesis hours of laboratory work.

AGRICULTURAL ENGINEERING

(Under the joint control of the Dean of Agriculture and the Dean of Engineering. For a detailed statement of the curriculum, see School of Agriculture.)

ARCHITECTURE AND ARCHITECTURAL ENGINEERING

FRESHMAN YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Eng. 101, College	3		3	Eng. 102, College	3		3
Chem. 101, Inorganic	3	(4)	4⅓	Chem. 102, Inorganic	2	(4)	3⅓
Math. 105, College Algebra	4		4	Math. 108, Plane Trigonometry	3		3
Arch. 111, Descriptive Geometry	2		2	Arch. 112, Descriptice Geometry	1	(3)	2
Arch. 103, Freehand Drawing		(3)	1	Arch. 104, Freehand Drawing		(3)	1
Arch. 105, Elements of Architecture		(4)	1⅓	Arch. 106, Elements of Architecture		(6)	2
Physical Education		(3)		Physical Education		(3)	
Military Science		(3)		Military Science		(3)	

ARCHITECTURE

SOPHOMORE YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Eng. 209, Technical Writing	2		2	Arch. 212, Hsitory of Architecture	2		2
Arch. 211, History of Architecture	2		2	Arch. 214, Building Construction	2		2
Arch. 207, Drawing from Antique		(4)	1⅓	Arch. 208, Drawing from Antique		(6)	2
Arch. 209, Architectural Design		(9)	3	Arch. 210, Architectural Design		(9)	3
Arch. 307, Water Color Painting		(3)	1	Arch. 308, Water Co or Painting		(3)	1
C. E. 201, Surveying		(3)	1	Physics 202, Engineering	4	(3)	5
Physics 201, Engineering	4	(3)	5	Pub. Spk. 101, Essentials	2		2
Shop 101, Woodwork		(3)	1	Shop 108, Carpentry		(3)	1
Military Science		(3)		Military Science		(3)	

JUNIOR YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr
Arch. 303, Applied Mechanics	2		2	Arch. 304, Strength of Materials	2		2
Arch. 321, Water Color Rendering		(3)	1	Arch. 322, Pen and Ink Rendering		(3)	1
Arch. 309, Working Drawings and and Estimates	1	(6)	3	Arch. 314, Drawing from Antique		(6)	2
Arch. 311, Architectural Design		(12)	4	Arch. 312, Architectural Design		(15)	5
E. E. 411, Wiring and Illumination	2		2	Econ. 406, Laws of Contracts	2		2
Electives	4		4	E. E. 412, Dynamo-Electric Machinery	2		2
				Electives	3		3

SENIOR YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr
Arch. 401, History of Painting	1		1	Arch. 414, History of Sculpture	1		1
Arch. 403, Life Class		(6)	2	Arch. 404, Clay Modeling		(4)	1⅓
Arch. 407, Architectural Design		(21)	7	Arch. 408, Architectural Design		(21)	7
Arch. 305, Plumbing and Drainage	2		2	Arch. 406, Seminar	1		1
C. E. 401, Structural Design		(6)	2	M. E. 424, Heating and Ventilation	2		2
Electives	2		2	Electives	4		4

ARCHITECTURAL ENGINEERING

SOPHOMORE YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Arch. 211, History of Architecture	2		2	Arch. 212, History of Architecture	2		2
Arch. 209, Architectural Design		(9)	3	Arch. 214, Building Construction	2		2
C. E. 201, Surveying		(3)	1	Arch. 210, Architectural Design		(9)	3
Math. 207, Analytical Geometry and Calculus	5		5	Physics 202, Engineering	4	(3)	5
Physics 201, Engineering	4	(3)	5	Math. 208, Calculus	5		5
Shop 101, Woodwork		(3)	1	Shop 108, Carpentry		(3)	1
Military Science		(3)		Military Science		(3)	

JUNIOR YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Arch. 207, Drawing from Antique		(4)	1⅓	Arch. 310, Advanced Working Drawings		(6)	2
Arch. 309, Working Drawings and Estimates	1	(6)	3	Arch. 208, Drawing from Antique		(6)	2
Eng. 209, Technical Writing	2		2	E. E. 412, Dynamo-Electric Machinery	2		2
C. E. 301, Applied Mechanics	3		3	C. E. 302, Mechanics of Materials	3		3
M. E. 311, Steam and Gas Engines	2		2	C. E. 308, Testing Laboratory		(3)	1
Pub. Spk. 101, Essentials of Public Speaking	2		2	C. E. 310, Framde Structures	2	(6)	4
Electives	2		2	Electives	2		2

SENIOR YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Arch. 307, Water Color Painting		(3)	1	Arch. 312, Architectural Design		(15)	5
Arch. 311, Architectural Design		(12)	4	Arch. 308, Water Color		(3)	1
Arch. 305, Plumbing and Drainage	2		2	Arch. 406, Seminar	1		1
E. E. 411, Wiring and Illumination	2		2	M. E. 424, Heating and Ventilation	2		2
C. E. 411, Steel Construction	2		2	C. E. 402, Concrete Structures		(6)	2
C. E. 401, Structural Design		(6)	2	Econ. 406, Laws of Contracts	2		2
C. E. 415, Reinforced Concrete	2		2	Electives	3		3
Electives	1		1				

TWO-YEAR SPECIAL COURSE IN ARCHITECTURE

FIRST YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Arch. 211, History of Architecture	1	(2)	1⅔	Arch. 212, History of Architecture	1	(2)	1⅔
Arch. 207, Drawing from Antique		(4)	1⅓	Arch. 208, Drawing from Antique		(6)	2
Arch. 307, Water Color Painting		(3)	1	Arch. 308, Water Color Painting		(3)	1
Arch. 111, Descriptive Geometry	2		2	Arch. 112, Descriptive Geometry	1	(6)	3
Arch. 311, Architectural Design		(12)	4	Arch. 312, Architectural Design		(15)	5
Electives	6		6	Electives	4		4

SECOND YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Arch. 403, Life Class		(6)	2	Arch. 404, Clay Modeling		(6)	2
Arch. 401, History of Painting	1		1	Arch. 406, Seminar	1		1
Arch. 407, Architectural Design		(21)	7	Arch. 408, Architectural Design		(21)	7
Electives	6		6	Arch. 414, History of Sculpture	1		1
				Electives	4		4

CHEMICAL, CIVIL, ELECTRICAL AND MECHANICAL ENGINEERING

FRESHMAN YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Eng. 101, College	3		3	Eng. 102, College	3		3
Chem. 101, Inorganic	3	(4)	4⅓	Chem. 102, Inorganic	2	(4)	3⅓
Arch. 103, Freehand Drawing		(3)	1	Math. 108, Plane Trigonometry	3		3
Arch. 111, Descriptive Geometry	2		2	M. E. 102, Engineering Drawing		(3)	1
Math. 105, College Algebra	4		4	Arch. 116, Descriptive Geometry	1	(3)	2
Shop 101, Woodwork		(3)	1	Pub. Spk. 101, Essentials	2		2
Physical Education		(3)		Shop 104, Woodwork		(3)	1
Military Science		(3)		Physical Education		(3)	
				Military Science		(3)	

CHEMICAL ENGINEERING

SOPHOMORE YEAR

FIRST SEMESTER

	Hours.		Cr.
Math. 207, Analytics and Calculus	5		5
Physics 201, Engineering	4	(3)	5
Chem. 201, Qualitative Analysis	2	(6)	4
Modern Language	3		3
Military Science		(3)	

SECOND SEMESTER

	Hours		Cr.
Math. 208, Calculus	5		5
Physics 202, Engineering	4	(3)	5
Chem. 210, Quantitative Analysis	2	(6)	4
Modern Language	3		3
Military Science		(3)	

JUNIOR YEAR

FIRST SEMESTER

	Hours.		Cr.
Chem. 311, Advanced Organic	3	(4)	4⅓
Chem. 321, Geology	2		2
M. E. 305, Heat-Power Engineering	4		4
M. E. 307, Mechanical Laboratory		(3)	1
Electives			5

SECOND SEMESTER

	Hours		Cr.
Chem. 312, Advanced Organic	3	(4)	4⅓
Bact. 310, General	3	(4)	4⅓
M. E. 308, Mechanical Laboratory		(3)	1
Electives			6

JUNIOR ELECTIVES

FIRST SEMESTER

	Hours.		Cr.
Chem. 327, Petroleum Technology	3	(6)	5
M. E. 301, Materials of Machines	2		2
Modern Language	3		3
R. O. T. C.	2		2

SECOND SEMESTER

	Hours		Cr.
Chem. 304, Advanced Quantitative	2	(6)	4
Chem. 322, Mineralogy	1	(4)	2⅓
M. E. 306, Thermodynamics	3		3
Modern Language	3		3
R. O. T. C.	2		2

SENIOR YEAR

FIRST SEMESTER

	Hours.		Cr.
Chem. 405, Industrial Chemistry	3	(9)	6
Chem. 423, Seminar	1		1
E. E. 413, Direct Current Machines	3	(3)	4
Electives	5		5

SECOND SEMESTER

	Hours		Cr.
Chem. 406, Industrial Chemistry	3	(9)	6
Chem. 424, Seminar	1		1
E. E. 414, Alternating Current Machines	3	(3)	4
Electives	5		5

SENIOR ELECTIVES

FIRST SEMESTER

	Hours.		Cr.
Chme. 411, Quantitative Analysis	1	(6)	3
M. E. 403, Gas-Power Engineering	2		2
Modern Language	3		3
R. O. T. C.	2		2

SECOND SEMESTER

	Hours		Cr.
Chem. 412, Quantitative Analysis	1	(6)	3
M. E. 420, Refrigeration	2		2
Econ. 406, Laws of Contracts	2		2
Modern Language	3		3
R. O. T. C.	2		2

CIVIL ENGINEERING

SOPHOMORE YEAR

FIRST SEMESTER

	Hours.		Cr.
Math. 207, Analytics and Calculus	5		5
Math. 205, Spherical Trigonometry	1		1
Physics 201, Engineering	4	(3)	5
Eng. 209, Technical Writing	2		2
C. E. 203, Surveying	2	(4)	3⅓
Military Science		(3)	

SECOND SEMESTER

	Hours		Cr.
Math. 208. Calculus	5		5
Physics 202, Engineering	4	(3)	5
C. E. 204, Railway Surveying	2	(6)	4
Shop 202, Forge		(3)	1
Military Science		(3)	

JUNIOR YEAR

FIRST SEMESTER

	Hours.		Cr.
C. E. 301, Applied Mechanics	3		3
C. E. 303, Roads and Pavements	2		2
C. E. 309, Higher Surveying	1	(4)	2⅓
C. E. 307, Topographical Drawing		(3)	1
M. E. 311, Steam and Gas Engines	2		2
Chem. 321, Geology	2		2
Electives	4		4

SECOND SEMESTER

	Hours		Cr.
C. E. 302, Mechanics of Materials	3		3
C. E. 310, Framed Structures	2	(6)	4
C. E. 308, Testing Laboratory		(3)	1
C. E. 312, Hydraulics	2	(2)	2⅔
C. E. 314, Railway Engineering	2		2
Chem. 322, Mineralogy	1	(4)	2⅓
Electives	2		2

SENIOR YEAR

FIRST SEMESTER

	Hours.		Cr.
C. E. 401, Structural Design	(6)		2
C. E. 413, Water Supply	2		2
C. E. 403, Irrigation	2		2
C. E. 415, Reinforced Concrete	2		2
C. E. 407, Testing Laboratory		(3)	1
Econ. 201, Principles of Economics	3		3
Electives	3		3

SECOND SEMESTER

	Hours		Cr.
C. E. 402, Concrete Structures		(6)	2
C. E. 404, Sewerage and Drainage	2		2
Bact. 402, Sanitary Science	3		3
E. E. 412, Dynamo-Electric Machinery	2		2
Econ. 406, Laws of Contracts	2		2
Econ. 417, City Economics	2		2
Electives	3		3

ELECTRICAL ENGINEERING

SOPHOMORE YEAR

FIRST SEMESTER

	Hours.		Cr.
Math. 207, Analytics and Calculus	5		5
Physics 201, Engineering	4	(3)	5
Eng. 209, Technical Writing	2		2
M. E. 201, Empirical Machine Design		(6)	2
C. E. 201, Elements of Surveying		(3)	1
Shop 203, Foundry		(3)	1
Military Science		(3)	

SECOND SEMESTER

	Hours		Cr.
Math. 208, Calculus	5		5
Physics 202, Engineering	4	(3)	5
M. E. 204, Kinematics	2	(6)	4
Shop 202, Forge		(3)	1
Military Science		(3)	

JUNIOR YEAR

FIRST SEMESTER

	Hours.		Cr.
C. E. 301, Applied Mechanics	3		3
Physics 301, Electrical Measurements	2	(3)	3
E. E. 303, Direct Current Machines	2	(3)	3
M. E. 305, Heat-Power Engineering	4		4
M. E. 307, Mechanical Laboratory		(3)	1
Shop 301, Machine-shop		(4)	1⅓
Elective	2		2

SECOND SEMESTER

	Hours		Cr.
C. E. 302, Mechanics of Materials	3		3
C. E. 312, Hydraulics	2	(2)	2⅔
C. E. 308, Testing Laboratory		(3)	1
Physics 302, Electrical Measurements	1	(3)	2
E. E. 304, Direct Current Machines	3	(4)	4⅓
M. E. 308, Mechanical Laboratory		(3)	1
Shop 302, Machine-shop		(4)	1⅓
Electives	2		2

SENIOR YEAR

FIRST SEMESTER

	Hours.		Cr.
E. E. 401, Alternating Current Machines	4	(4)	5⅓
E. E. 403, Telephony	3	(3)	4
E. E. 405, Electrical Machine Design	2	(3)	3
Econ. 201, Principles of Economics	3		3
Engineering Electives or R. O. T. C.	2		2

SECOND SEMESTER

	Hours		Cr.
E. E. 402, Alternating Current Machines	4	(6)	6
E. E. 404, Electrical Power Transmission	2		2
M. E. 412, Steam-Power Plants	2	(3)	3
Econ. 406, Laws of Contracts	2		2
Engineering Electives or R. O. T. C.	2		2

MECHANICAL ENGINEERING

SOPHOMORE YEAR

FIRST SEMESTER

	Hours.		Cr.
Math. 207, Analytics and Calculus	5		5
Physics 201, Engineering	4	(3)	5
Eng. 209, Technical Writing	2		2
M. E. 201, Empirical Machine Design		(6)	2
Shop 203, Foundry		(3)	1
C. E. 201, Surveying		(3)	1
Military Science		(3)	

SECOND SEMESTER

	Hours		Cr.
Math. 208, Calculus	5		5
Physics 202, Engineering	4	(3)	5
M. E. 204, Kinematics	2	(6)	4
Shop 202, Forge		(3)	1
Military Science		(3)	

JUNIOR YEAR

FIRST SEMESTER

	Hours.	Cr.
C. E. 301, Applied Mechanics	3	3
M. E. 301, Materials of Machines	2	2
M. E. 303, Machine Design	3	3
M. E. 305, Heat-Power Engineering	4	4
M. E. 307, Mechanical Laboratory	(3)	1
Shop 301, Machine-shop	(4)	1⅓
Elective	2	2

SECOND SEMESTER

	Hours	Cr.
C. E. 302, Mechanics of Materials	3	3
C. E. 308, Testing Laboratory	(3)	1
C. E. 312, Hydraulics	2 (2)	2⅔
M. E. 304, Machine Drafting	(6)	2
M. E. 306, Thermodynamics	3	3
M. E. 308, Mechanical Laboratory	(3)	1
Shop 302, Machine-shop	(4)	1⅓
Electives	2	2

SENIOR YEAR

FIRST SEMESTER

	Hours.	Cr.
M. E. 401, Steam Engine Design	2 (6)	4
M. E. 405, Mechanical Laboratory	(6)	2
E. E. 413, Direct Current Machinery	3 (3)	4
Econ. 201, Principles of Economics	3	3
Shop 401, Machine-shop	(4)	1⅓
Electives below	2	2

SECOND SEMESTER

	Hours	Cr.
M. E. 412, Steam-Power Plant Design	2 (3)	3
M. E. 414, Works Management	3	3
E. E. 414, Alternating Current Machinery	3 (3)	4
Econ. 406, Laws of Contracts	2	2
Electives below	4	4

SENIOR ELECTIVES

FIRST SEMESTER

	Hours	Cr.
M. E. 403, Gas-Power Engineering	2	
M. E. 407, Compressed Air Machinery	2	
M. E. 421, Hydraulic Machinery	2	
R. O. T. C.	2	

SECOND SEMESTER

	Hours	Cr.
M. E. 410, Pumping Machinery	2	
M. E. 416, Thesis	4	
M. E. 418, Advanced Design	1 to 4	
M. E. 420, Refrigeration	2	
M. E. 424, Heating and Ventilation	2	
R. O. T. C.	2	

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DEPARTMENT OF ARCHITECTURE

F. W. REDLICH. *Professor*
J. J. PATTERSON, *Instructor*
P. A. WILBER, *Instructor*

The courses offered by the department divide themselves into two groups. Both are full professional courses extending over four years. Course I is open to all students studying architecture; Course II for those studying architectural engineering.

COURSES I AND II

The schedules of Courses I and II conform to the standard minima of the Associated Collegiate Schools of Architecture.

It is the purpose of the department to offer the necessary training in design, construction and the allied subjects that will eventually fit the student for the practice of architecture, and will also enable him upon graduation to be of immediate value as a draftsman. With this end in view, the course of study combines with the strictly professional work the essentials of a liberal education, aiming to give the student as broad a foundation as possible for his fu-

ture work. The number and scope of the subjects to be covered during the course make it necessary that the student start his architectural work at the beginning of the Freshman year.

The two courses in architecture and architectural engineering run very nearly parallel for the first two years in order to give the student an opportunity for careful investigation before making a choice. At the beginning of the third year the line of demarcation between the professional work of the two options becomes more marked, and in the fourth year it is very sharply defined, but the general subject common to both options, which continues through the four years, emphasizes the close relationship between the two courses.

The work in design is started after the courses in descriptive geometry, shades and shadows and perspective, and the elements of architecture have given the student a good foundation. During the Sophomore year, problems in design are taken, involving the use of the orders and other elements in order to train the student in sense of correct form and proportion.

In the Junior and Senior years, plan problems are given, and the entire composition of buildings is studied. A series of lectures on the elements and theory of architecture accompanies this work, and frequent sketch problems are given in order to develop rapidity of thought and presentation.

Students in architecture devote 25% of the entire course to design; for those taking architectural engineering, design is decreased to 15%, but 34% of their course consists of engineering studies and advanced construction. Throughout all years of the course in architecture runs some form of freehand drawing, the basic nature of which cannot be overestimated. The history of architecture possesses a cultural as well as a technical value, for its prevailing styles reflect great movements of civilization among races—their migrations, conquests, commercial, social and religious changes. The study of history of architecture commences in the Sophomore year, and with the attendant subjects of ornament, painting and sculpture, continues through the balance of the course in architecture. Students in architectural engineering take less freehand drawing and history than those in architecture.

Of foreign languages, French is the most useful to the architect, and should, therefore, be preferably offered for entrance. The

technical terms employed in architecture are largely French, and where the entrance requirement has been met by the offer of another language, it is desirable that the student take some French after matriculation.

During the summer vacation architectural students are expected to spend as large a part of their time as possible in the offices of practicing architects, and it has been found that those men who regularly follow this plan make the greatest advancement in college work.

The equipment of the architectural lecture-room includes a Bausch & Lomb "Universal Balopticon" for the projection of slides and plates, and a carefully selected collection of lantern slides. The drawings, books and journals in the architectural library are freely accessible to students during working hours, but must not be removed from the departmental reading-room without special permission, which, however, is readily given for cause. The drafting-rooms are provided with "Economy" drawing tables of a type adopted as standard by the department; these have ample drawer capacity for students' work and tools; a top 39 by 72 inches in size for perspectives, and loose, inclined boards 32 by 44 inches for general use.

The studio for freehand drawing is well equipped with practical objects, still life models, simple plaster casts, casts of architectural features and sculpture.

In addition to the full four-year courses, a special course of two years' duration is also offered to qualify men who have had sufficient experience in the office of a practicing architect to enable them to carry on the required work. No entrance examinations for this work will be required. Upon the completion of the required work a certificate of proficiency is given.

LANDSCAPE ARCHITECTURE

For the benefit of those desiring special training in this line of work an elective course is offered, consisting of six hours a week of drafting. This is open to students of any department, and will be adapted to their individual requirements.

SUBJECTS

103 FREEHAND DRAWING. Drawing 3 hours. Credit 1.
Freehand drawing from objects and simple casts in pencil.

104 FREEHAND DRAWING. Drawing 3 hours. Credit 1.
Freehand drawing from objects and simple casts in charcoal.

105 ELEMENTS OF ARCHITECTURE. Drafting 4 hours. Credit 1⅓.
The classic orders of architecture and elementary studies in composition, with drawings rendered in india ink.

!06 ELEMENTS OF ARCHITECTURE. Drafting 6 hours. Credit 2.
Prerequisite: Arch. 105.
Continuation of the orders and elementary studies in composition.

111 DESCRIPTIVE GEOMETRY. Class 2 hours. Credit 2.
A course for students in architecture and engineering. Fundamental problems involving points, lines, planes, intersections, and development of surfaces, isometric and oblique projections.

112 DESCRIPTIVE GEOMETRY. Class 1 hour, drafting 3 hours. Credit 2.
For students of architecture.
Prerequisite: Arch 111.
The fundamental problems are applied in the delineation of shades and shadows. Perspective drawing.

1!6 DESCRIPTIVE GEOMETRY. Class 1 hour, drafting 3 hours. Credit 2.
For engineering students.
Prerequisite: Arch. 111.
A continuation and practical application of Architecture 111.

207 DRAWING FROM THE ANTIQUE. Drawing 4 hours. Credit 1⅓.
Work in pencil, pen and ink, and charcoal, from casts of architectural ornament, architectural fragments and parts of the figure.

208 DRAWING FROM THE ANTIQUE. Drawing 6 hours. Credit 2.
Prerequisite: Draw. 104.
Work in charcoal and pastel from casts of antique sculpture.

209 ARCHITECTURAL DESIGN. Drafting 9 hours. Credit 3.
Prerequisite: Arch. 106.
A study of architectural composition with library research. Problems in design, composition, planning, motives, details and rendering. Lectures and criticisms.

210 ARCHITECTURAL DESIGN. Drafting 9 hours. Credit 3.
Prerequisite: Arch. 209.
Continuation of problems in design, composition and planning, with researches, lectures and criticisms.

211 HISTORY OF ARCHITECTURE. Class 2 hours. Credit 2.
Prerequisite: General History.
Origin and development of historical styles of architecture from the earliest times up to the Gothic period. Typical examples are studied in detail, and for this purpose the lantern is in constant use. Stress is laid on the evolution of styles from changes in structural form, political and religious conditions, and national character.

212 HISTORY OF ARCHITECTURE. Class 2 hours. Credit 2.
Prerequisite: Arch. 211.
Continuation of the development of historical styles of architecture, including Gothic, Rennaissance and modern styles.

214 BUILDING CONSTRUCTION. Class 2 hours. Credit 2.

Building materials and construction. Foundations, footings and walls; stone and brick masonry; concrete, terra cotta and plastering. Fire-resisting construction. Classwork supplemented by drawing and inspection of structures. Carpentry work; properties and uses of various woods; methods of framing; mill construction; interior finish; hardware. Technical features of specifications and relation of architect, owner and contractor.

303 APPLIED MECHANICS. Class 2 hours. Credit 2.

A course in kinematics, kinetics and statics for architectural students and others who have not had the calculus.

304 STRENGTH OF MATERIALS. Class 2 hours. Credit 2.

Prerequisite: Arch. 303.

Continuation of the course in mechanics for students who have not taken the calculus. Graphical methods of determining the elastic curve of beams; centroids and moments of inertia of areas; beams and columns; properties and tests of building materials.

305 PLUMBING AND DRAINAGE. Class 2 hours. Credit 2.

Plumbing systems and fixtures; water supply and filtration; sewage dsiposal and general sanitation.

307 WATER COLOR PAINTING. Drawing 3 hours. Credit 1.

Prerequisite: Arch. 208.

Work from architectural casts and from still life. Outdoor sketching.

308 WATER COLOR PAINTING. Drawing 3 hours. Credit 1.

Prerequisite: Arch. 307.

Given with special reference to conventional and sketch rendering of architectural subjects. Out-of-door sketches.

309 WORKING DRAWINGS AND ESTIMATES. Class 1 hour, drafting 6 hours. Credit 3.

Prerequisite: Arch. 210.

Under such limitations as a client would be likely to impose, the student prepares working drawings, specifications, typical details and estimates for a residence of his own design.

310 ADVANCED WORKING DRAWINGS. Drafting 6 hours. Credit 2.

Prerequisite: Arch. 309

Continuation of 309 Working drawings of public buildings, office buildings, etc.

311 ARCHITECTURAL DESIGN. Drafting 12 hours. Credit 4.

Prerequisite: Arch. 210.

Advanced problems in design, composition and planning, with research, lectures and criticisms.

312 ARCHITECTURAL DESIGN. Drafting 15 hours. Credit 5.

Prerequisite: Arch. 311.

Continuation of advanced problems in design, composition and planning, with research, lectures and criticisms.

314 DRAWING FROM THE ANTIQUE. Drafting 6 hours. Credit 2.

Prerequisite: Arch. 208.

Work in water colors and oils from the casts of antique sculpture.

321 WATER COLOR RENDERING. Drafting 3 hours. Credit 1.

Prerequisite: Arch. 308.

322 PEN AND INK RENDERING. Drafting 3 hours. Credit 1.
Prerequisite: Arch. 207.
Architectural sketching in pen and ink.

401 HISTORY OF PAINTING. Class 1 hour. Credit 1.
Illustrated lectures on the history of painting, with special reference to architectural design.

403 LIFE CLASS. Drawing 6 hours. Credit 2.
Prerequisite: Arch. 308.
Figure sketching from the live model. Method of execution is entirely individual, whether in color or in black and white.

404 CLAY MODELING. Laboratory 6 hours. Credit 2.
Prerequisite: Arch. 207 and 302.
Work from architectural casts and from sketches.

406 SEMINAR. Class 1 hour. Credit 1.
Professional ethics and practice. Reports, lectures and discussions on selected topics.

407 ARCHITECTURAL DESIGN. Drafting 21 hours. Credit 7.
Prerequisite: Arch. 312.
Extended problems in design, composition and planning, with research and criticisms.

408 ARCHITECTURAL DESIGN. Drafting 21 hours. Credit 7.
Prerequisite: Arch. 407.
Continuation of Architecture 407. During the latter half of the semester a single major problem is studied and worked up in detail as a thesis problem.

410 INTERIOR DESIGN AND DECORATION. Drafting 9 hours. Credit 3.
Simple design problems for woodwork, including mantels, bookcases, cabinets, doors annd windows, staircases, halls, drawing-rooms. Use of materials. Wall decorations in color.

414 HISTORY OF SCULPTURE. Class 1 hour. Credit 1.
Illustrated lectures on the history of sculpture, with special reference to architectural design.

417 LANDSCAPE ARCHITECTURE. Drafting 6 hours. Credit 2.
This course is elective to students of all departments, and can be arranged to suit their special needs.

DEPARTMENT OF CHEMICAL ENGINEERING

HILTON IRA JONES, *Professor*
————————, *Assistant Professor*

This course in chemical engineering has been arranged to meet the needs of an increasing number of students who wish to prepare themselves for engineering work that depends wholly or in part on chemical or metallurgical processes. The purpose of the course is to provide the young engineer with a broad, well founded knowledge of both chemistry and mechanical engineering so that he may

be prepared to take up the work of assisting in the design and erection of machinery used in such manufacturing plants as those indicated. But it is the aim of the work also to develop in him the ability to see the bearing of a proposition from the combined viewpoint of the chemist and the engineer, which is essential if one is to appreciate the fact that commercial success in manufacturing depends on the application of scientific principles.

In addition to a knowledge of the principles on which the design, construction annd maintenance of a manufacturing plant rests, there must be control of the raw material used and the products turned out. No efficient control can be had except through chemical analyses; on this account the study of analytical chemistry is specially emphasized.. The courses in chemistry and in mechanical engineering are so arranged that the work of the first two years is fundamental in character and furnishes a suitable foundation for one who would become either a chemist or an engineer; while that of the last two years, though it requires all the essential work for either, allows the student some choice of subjects, depending on the interests he has developed up to that time.

The equipment of both the chemical laboratory and the Department of Mechanical Engineering, described elsewhere in this catalog, is available for the work of this course.

Regular work is supplemented from time to time by the analyses of oil and similar products sent in from different parts of Oklahoma and elsewhere.

For the outline of the course, see "Courses in the School of Engineering".

For a description of the courses in chemistry, see the Department of Chemistry.

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DEPARTMENT OF CIVIL ENGINEERING

ALFRED BOYD, *Professor*
E. R. OLBRICH, *Assistant Professor*

The work of the civil engineer includes highway and railroad location and construction, municipal improvement, hydraulic, sanitary and structural engineering. The purpose of the instruction in this department is to give a training sufficiently broad and comprehensive to fit a student to enter any line of civil engineering practice.

Highway construction is of increased importance, and this fact is recognized by the emphasis placed upon that part of the training which prepares men for this work.

The problems of water supply and sewage disposal are being brought to the attention of almost every community in Oklahoma. The training of city managers who have to deal with these and other municipal problems is identical with that of a well equipped civil engineer.

This department is well supplied with the instruments needed for a thorough course in surveying, including surveys for highways, railroads, drainage and irrigation projects, and geodetic work.

In the course in bridge and structural design, careful study is made of the theory of stresses, and practice given in the actual designing of wood, steel and concrete structures.

The testing laboratory contains all of the machines usually found in a well-equipped laboratory for the testing of structural materials. Opportunity is offered for laboratory study of cement and concrete. The machines for the testing of road materials conform to the standards of the United States Office of Public Roads.

Class instruction in hydraulics is supplemented by work in the hydraulic laboratory. Measurements of flow are made for weirs, nozzles, pipes and flumes. Tests of a Pelton wheel, of a centrifugal pump, and of water meters, and field measurements by means of a current meter are also made. A thorough training in hydraulics is necessary to deal with problems in water supply, irrigation, and hydraulic development.

In addition to the work in mathematics, physics and chemistry required of all engineering students, certain courses adapted to the needs of civil engineers are required. Spherical trigonometry is given in the Sophomore year, and an opportunity to elect least squares in the Junior and Senior years. Geology and mineralogy are required subjects. They have a direct bearing upon the study of road and building materials. A course in sanitary biology is offered by the Department of Bacteriology and is of special importance for a clear understanding of sewage disposal and water supply. A course in steam and gas engineering and one in dynamo-electric machinery, given by other departments, are especially adapted to the needs of civil engineering students.

The drafting-room for this department is well-equipped and

well lighted. There is a good collection of working drawings and designs, representing standard practice in different fields of engineering, which are used for reference in several of the courses.

SUBJECTS

201 ELEMENTS OF SURVEYING. Fieldwork 3 hours. Credit 1.

Care, use and adjustment of the transit and level. Traversing, leveling, making of profiles, keeping of field notes. A course adapted to the needs of those who require an elementary knowledge of surveying, but do not expect to complete a course in civil engineering.

203 SURVEYING. Class 2 hours, fieldwork 4 hours. Credit 3⅓.

Prerequisite: Math. 108.

Care, use and adjustment of compass, transit, level and plane table. Leveling, traversing, topographical measurements and mapping.

204 RAILWAY SURVEYING. Class 2 hours, fieldwork 6 hours. Credit 4.

Prerequisite: C. E. 203.

Exercises in simple, reverse and transition curves; preliminary and location surveys for a short-line railroad; cross-sections and estimates.

Text: "Railroad Curves and Earthwork", Allen.

301 APPLIED MECHANICS. Class 3 hours. Credit 3.

Prerequisite: Math. 208.

Principles of statics; theory of structures; dynamics.

Text: "Applied Mechanics", Poorman.

302 MECHANICS OF MATERIALS. Class 3 hours. Credit 3.

Prerequisite: C. E. 301.

Properties of materials; flexure; beams, columns, shafts.

Text: "Strength of Materials", Boyd.

308 ROADS AND PAVEMENTS. Class 2 hours. Credit 2.

Methods of construction and maintenance of various types of roads and pavements. Road machinery and road organization.

307 TOPOGRAPHICAL DRAWING. Drawing 3 hours. Credit 1.

Prerequisite: C. E. 203.

Conventional symbols, lettering, preparation of profiles and maps.

308 TESTING LABORATORY. Laboratory 3 hours. Credit 1.

Prerequisite: C. E. 301.

Testing of sand, cement, concrete, road materials.

309 HIGHER SURVEYING. Class 1 hour, fieldwork 4 hours. Credit 2⅓.

Prerequisite: Math. 205 and C. E. 203.

Determination of azimuth, latitude, longitude and time. Fieldwork in baseline measurement and triangulation.

310 FRAMED STRUCTURES. Class 2 hours, drawing 6 hours. Credit 4.

Prerequisite: C. E. 301.

Stresses in simple structures; graphic analysis; elements of design.

312 HYDRAULICS. Class 2 hours, laboratory 2 hours. Credit 2⅔.

Prerequisite: Math. 208.

Fundamnetal principles and their application; laboratory determination of coefficients.

Text: "Textbook of Hydraulics", Russell.

314 RAILWAY ENGINEERING. Class 2 hours. Credit 2.

Methods of construction and maintenance of roadbed and structures; surveys and estimates; organization; signaling; economic theory as applied to location and operation.

401 STRUCTURAL DESIGN. Drawing 6 hours. Credit 2.

Prerequisite: C. E. 310.

Design of structures of wood and steel, and of reinforced concrete, as applied to buildings.

402 CONCRETE STRUCTURES. Drawing 6 hours. Credit 2.

Prerequisite: C. E. 302.

Designing of retaining walls, dams and reinforced concrete arches.

403 IRRIGATION. Class 2 hours. Credit 2.

Prerequisite: C. E. 312.

Capacity of canals; surveys; sources of supply; design of structures; methods of applying water; irrigation law.

404 SEWERAGE AND DRAINAGE. Class 2 hours. Credit 2.

Prerequisite: C. E. 312.

Design and construction of sewerage systems; modern methods of sewage disposal; methods of drainage.

407 TESTING LABORATORY. Laboratory 3 hours. Credit 1.

Prerequisite: C. E. 302.

Laboratory examinations of the various materials of construction.

408 THESIS. Laboratory 6 hours. Credit 2.

Original investigation of some engineering subject.

411 STEEL CONSTRUCTION. Class 2 hours. Credit 2.

Prerequisite: C. E. 301.

Steel frame construction of buildings and its application to modern fireproof work.

Text: "Steel Construction", Burt.

413 WATER SUPPLY. Class 2 hours. Credit 2.

Prerequisite: C. E. 312.

Sources of supply. Design, construction and maintenance of waterworks systems. Methods of purification.

Text: "Water Supply Engineering", Folwell.

415 REINFORCED CONCRETE. Class 2 hours. Credit 2.

Prerequisite: C. E. 301.

Theory and practice in the design of reinforced concrete.

Text: "Reinforced Concrete Construction", Hool.

416 IRRIGATION AND DRAINAGE. Class 2 hours, laboratory 3 hours. Credit 3.

A practical course, dealing with the location and construction of drainage and irrigation ditches, the distribution of water, subsurface and spray systems. The cause and prevention of alkali. Pumping and storage.

DEPARTMENT OF ELECTRICAL ENGINEERING

WILLAM CARL LANE, *Professor*
————————, *Instructor*

The course in electrical engineering is designed to give the student a thorough training in the fundamental principles of electricity and in their application to the problems of the engineer. The successful electrical engineer must have a broad general engineering training in addition to his training in electricity; hence, the student is required to take a number of subjects in the other departments of the School of Engineering. These include applied mechanics, heat-power engineering, hydraulics, strength of materials, and several other of the allied engineering branches.

The first two years of the course are devoted to the fundamental subjects. During this period the student receives a careful training in English, mathematics, chemistry, physics, drawing, surveying and shop practice.

The electrical engineering work proper begins in the Junior year. The principles of electrical engineering, direct current machinery, wiring and illumination are studied in detail. All courses include laboratory work of a practical nature. The Senior year's work includes a detailed study of alternating current machinery, electric power plants, electric power transmission and telephony. Laboratory practice in alternating currents includes the testing of generators, motors, synchronous converters, transformers, rectifiers and meters. Care is taken to coordinate all work of the classroom with the work of the laboratory.

The dynamo laboratory, located on the first floor of the Engineering Building, is equipped with modern direct and alternating current generators and motors, synchronous converters, transformers, rectifiers, arc lamps, starting devices and switchboards. An ample supply of voltmeters, ammeters, wattmeters, tachometers and other necessary measuring instruments is provided. The laboratory equipment is representative of modern practice. No machines are wired up permanently. The students of each class are required to wire up the machines and adjust them for best operation before performing an experiment. At the close of a test, all wires are disconnected.

The battery-room and the calibrating laboratory are adjacent to the dynamo laboratory. The former contains a 90-cell storage bat-

tery for supplying energy for calibrating purposes, a battery for operating the College bell system, and other experimental batteries. The latter is equipped with a Leeds-Northrup potentiometer and standard shunts, a standard Weston voltmeter, a Weston indicating wattmeter and the other necessary auxiliary apparatus for calibrating both laboratory and commercial instruments.

Modern telephone apparatus is provided for use in connection with the course in telephony. A darkroom is equipped with a Leeds-Northrup photometer of the latest type, and is devoted exclusively to photometric work.

SUBJECTS

303 DIRECT CURRENT MACHINES. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: Physics 202; Math. 208.
A study of direct current machinery.
Text: "Elements of Electrical Engineering", Franklin and Esty (Vol. I).

304 DIRECT CURRENT MACHINES. Class 3 hours, laboratory 4 hours. Credit 4⅓.

Prerequisite: E. E. 303.
A continuation of E. E. 303.
Text: "Elements of Electrical Engineering", Franklin and Esty (Vol. 1).

401 ALTERNATING CURRENT MACHINES. Class 4 hours, laboratory 4 hours. Credit 5⅓.

Prerequisite: Math. 208; E. E. 302, 304.
A study of the fundamentals of alternating currents and their application to alternators, transmission lines, synchronous motors and conversion apparatus.
Text: "Principles of Electrical Engineering", Franklin and Esty (Vol. II).

402 ALTERNATING CURRENT MACHINES. Class 4 hours, laboratory 6 hours. Credit 6.

Prerequisite: E. E. 401.
A continuation of E. E. 401. A study of transformers and alternating current motors.
Text: "Principles of Elecerical Engineering", Franklin and Esty (Vol. II).

403 TELEPHONY. Class 3 hours, laboratory 3 hours. Credit 4.

Prerequisite: Physics 301, 302.

404 ELECTRIC POWER TRANSMISSION. Class 2 hours. Credit 2.

Prerequisite: E. E. 401.
Includes generation, transmission, distribution and utilization of power by electrical process.
Text: "Elements of Electrical Transmission", Ferguson.

405 ELECTRICAL MACHINE DESIGN. Class 2 hours, designing and drafting 3 hours. Credit 3.

Prerequisite: E. E. 304.
Theory and design of a dynamo.
Text: "Electrical Machine Design", Gray.

411 WIRING AND ILLUMINATION. Class 2 hours. Credit 2.
Prerequisite: Physics 202.
Theory and practice in the design of the lighting and wiring of buildings, and of the wiring of electrical apparatus in general.

412 DYNAMO-ELECTRIC MACHINERY. Class 2 hours. Credit 2.
Prerequisite: Physics 202; Math. 208.
A brief course in direct and alternating current machinery.

413 DIRECT CURRENT MACHINERY. Class 3 hours, laboratory 3 hours. Credit 4.
Prerequisite: Physics 202; Math. 208.
A study of direct current machinery.
Text: "Essentials of Electrical Engineering", Wilson.

414 ALTERNATING CURRENT MACHINERY. Class 3 hours, laboratory 3 hours. Credit 4.
Prerequisite: E. E. 413.
A continuation of E. E. 413.
Text: Same as E. E. 413.

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DEPARTMENT OF MECHANICAL ENGINEERING

CHARLES JABLOW, *Professor*

The field of the mechanical engineer includes the design and construction of tools and machinery; the solution of problems of power generation ,including those presented by the advent of the steam turbine and the gas engine; power transmission by mechanical means; and all questions involving refrigeration, heating and ventilation, gas manufacture, and the mechanical equipment of railroads. He is concerned with the design of farm motors and of agricultural machinery; with hydraulic machinery for the water supply of cities; with operations involved in mining and ore preparation; and with the design and equipment of steamships. To him is entrusted the problems concerning pumps, compressors and mechanical conveyors. More broadly still, he has now come to be a conspicuous factor in our industrial development as an organizer, systematizer and cost reducer. It is a matter of record that for three years after graduation, most technical men are engaged as draftsmen and subordinates; that for the next five years most are classed as superintendents, engineers-in-fact, and minor executives, and that after eight years the larger proportion of mechanical negineering graduates are firm members, managers and executive officials. Of the membership of the American Society of Mechanical Engineers, for example, 50% are manufacturers or chief officials; 15½% are engaged in professional practice as consulting special-

ists, while only 4% are actually concerned with detail of mechanical design. The great work of the mechanical engineer is economical production. His success must be based on scientific training, but it must also depend upon the study of current methods. The aim of the course in mechanical engineering is to afford both of the above kinds of training. The student is therefore given a thorough training in the fundamental engineering principles, while at the same time he is made conversant with the principles of contemporary engineering practice.

The student must also acquire at least the fundamentals of that broad cultural training which is recognized as indispensable to the success of men who must meet other men of varied experience and work with them in a professional capacity. This latter training is given, not by the addition of uncorrelated subjects, but, in the main, by directing the attention of the student to his responsibility as a citizen,and in showing the application and relation of such subjects as economics, ethics, psychology and sociology to his professional subjects.

There is a certain amount of overlapping of all the engineering courses. The student therefore acquires a broad knowledge of the different branches of engineering. The work of the Freshman year is alike for the M. E., E. E., Ch. E. and C. E. courses. The Sophomore work is alike for the M. E. and E. E. courses. Beginning with the Junior year the differentiation between these courses increases.

The steam, gas-power, hydraulic and fuel and lubricant testing laboratories are all equipped with apparatus necessary for carrying on complete experiments. The wood shop, forge shop, machine shop and the foundry are likewise completely equipped with tools and machinery necessary to do work along lines obtaining in practice.

SUBJECTS

102 ENGINEERING DRAWING. Drafting 4 hours. Credit 1⅓.
Required of Freshmen in M. E., E. E. Ch. E. and C. E., second semester.
Lettering and drawing of machine parts from copy; drawing to scale.
Text: "Engineering Drawing", French.

103 MECHANICAL DRAWING. Drafting 3 hours. Credit 1.
Required of Freshmen in School of Commerce and Marketing, first semester.
Use of instruments, lettering, chart-drawing and making of graphs.

201 EMPIRICAL MACHINE DESIGN. Drafting 6 hours. Credit 2.
Prerequisite: M. E. 102.
Required of Sophomores in M. E. and E. E., first semester.

Machine drawing and proportioning of machine parts from the standpoint of good usage and general appearance rather than from the analysis of stresses.
Text: "Engineering Drawing", French.

204 KINEMATICS. Class 2 hours, drafting 6 hours. Credit 4.
Prerequisite: M. E. 201; Math. 108.
Required of Sophomores in M. E. and E. E., second semester.
Theory of mechanism and application to instant-centers, cams, gears, linkages, belting, ballbearings, velocity and acceleration diagrams, etc.
Text: "Elements of Mechanism", Schwamb and Merrill.

301 MATERIALS OF MACHINES. Class 2 hours. Credit 2.
Prerequisite: Shop 202, 203; Physics 201; Chem. 102.
Required of Juniors in M. E., first semester.
The manufacture and properties of iron and steel as applied to machine construction; heat treatment of steels; metallography; alloy steels; properties of copper alloys and bearing metals.
Text: "Metallurgy of Iron and Steel", Stoughton.

303 MACHINE DESIGN. Class 3 hours. Credit 3.
Prerequisite: M. E. 201, 204. Concurrent with M. E. 301.
Required of Juniors in E. E., first semester.
Design of machine parts by analysis of stresses applied and selection of proper factors of safety. Applications of the laws of mechanics and kinematics to the design of machines, and a consideration of modifications due to practical conditions.
Text: "Machine Design", Kimball and Barr.

304 MACHINE DRAFTING. Drafting 6 hours. Credit 2.
Prerequisite: M. E. 303.
Required of Juniors in M. E., second semester.
Drafting-room applications of the work given in M. E. 303. Design and working drawings of complete machines. A short time is devoted to the subject of jigs and fixture design.
Text: "Machine Design", Kimball and Barr; "Mechanism" Schwamb and Merrill.
Reference Book: Mark's "Mechanical Engineer's Handbook".

305 HEAT-POWER ENGINEERING. Class 4 hours. Credit 4.
Prerequisite: Physics 202. Concurrent with M. E. 307.
Required of Juniors in M. E. and E. E., first semester.
A functional course covering the construction and operation of steam and gas-power apparatus, including reciprocating and turbine steam engines, internal combustion engines, gas producers, boilers and power-plant auxiliaries.
Text: "Heat-Power Engineering", Hirshfield and Barnard; "Steam Tables", Marks and Davis.

306 THERMODYNAMICS. Class 3 hours. Credit 3.
Prerequisite: M. E. 305; Math. 208.
Required of Juniors in M. E., second semester.
The laws and properties of gases and vapors as applied to steam engines, gas engines, steam turbines, compressors and refrigerating machinery.
Text: "Heat-Power Engineering", Hirshfield and Barnard.

307 MECHANICAL LABORATORY. Laobratory 3 hours. Credit 1.
Concurrent with M. E. 305.
Required of Juniors in M. E. and E. E., first semester.
Calibration of indicator springs, steam gages, thermometers, dynamometers and planimeters; of steam and fuel calorimeters; of venturi, disk and piston type meters. Proximate analysis of coals. Flash and burning tests of

oils. Test of lubricants and fuel oils. Tests of injectors and separators. Valve-setting with use of indicator. Simple engine and boiler tests.
Text: "Power-Plant Testing", Moyer.

308 MECHANICAL LABORATORY. Laboratory 3 hours. Credit 1.

Prerequisite: M. E. 307.
Required of Juniors in E. E. and M. E., second semester.
Tests of pumps, air compressors, blowers, steam turbines, and gas, gasoline and oil engines.
Text: "Power-Plant Testing", Moyer.

311 STEAM AND GAS ENGINEERING. Class 2 hours. Credit 2.

Prerequisite: Physics 202.
Required of Juniors in C. E. and A. E., first semester.
The construction and selection of power-plant machinery, including the different types of engines, boilers, pumps, compressors, refrigerating machines and power-plant auxiliaries.
Text: "Heat Engines", Allen and Bursley.

401 STEAM ENGINE DESIGN. Class 2 hours, draftinig 6 hours. Credit 4.

Prerequisite: M. E. 304, 306.
Required of Seniors in M. E., first semester.
A study of the various types of reciprocating steam engines. Theoretical and practical considerations entering into the design of valve gears and engine details. Governor design. Balancing and the determination of flywheel weights. Compound engines. Graphical as well as mathematical methods of design are employed. The principal parts of a highspeed, automatic cutoff engine or of a Corliss engine are laid off on the drafting board.
Reference Book: Mark's "Mechanical Engineer's Handbook".

403 GAS-POWER ENGINEERING. Class 2 hours. Credit 2.

Prerequisite: M. E. 306.
Elective for Seniors in M. E., first semester.
A study of modern internal combustion engines (gas, gasoline, oil and alcohol), and of the production of gas for motive power (natural, illuminating, producer, blast furnace and coke oven gas). Gas producers and gas cleaning. Theory and method of internal combustion engine design.
Text: "Modern Gas Engine and Gas Producer", Levin.

405 MECHANICAL LABORATORY. Laboratory 6 hours. Credit 2.

Prerequisite: M. E. 307.
Required of Seniors in M. E., first semester.
Tests of pumps, air compressors, blowers, steam turbines, refrigerating machines, and gas, gasoline and oil engines. Special engine and boiler tests; Hirns' analysis and various over-all tests of power plants.
Text: "Power-Plant Testing", Moyer.

407 COMPRESSED AIR MACHINERY. Class 2 hours. Credit 2.

Prerequisite: M. E. 303, 305.
Elective for Seniors in M. E., first semester.
A study of the physical properties of air and of the characteristics of the different types of air compressors with a view to intelligent selection of the proper type and size for a given set of conditions. Single and multi-stage compression. Hydraulic compression of air. Measurements and transmission of compressed air.
Text: "Air Compression and Transmission", Thorkelson.

410 PUMPING MACHINERY. Class 2 hours. Credit 2.

Prerequisite: M. E. 303, 305.

Elective for Seniors in M. E., first semester.

History and development of pumping machinery; force and lift pumps; reciprocating and centrifugal pumps; hydraulic presses and hydraulic pressure lines. Theory and method of design of pumps; study of the characteristics of the various types with a view to intelligent selection of the proper type and size for a given set of conditions.

Text: "Pumping Machinery", Green.

412 STEAM-POWER PLANTS. Class 2 hours, drafting 3 hours. Credit 3.

Prerequisite: M. E. 305.

Required of Seniors in M. E. and E. E., second semester.

A plant is designed on the drawing board after a careful study has been made of the different types of power plant apparatus; selection of units is then made to fulfill certain given conditions.

Text: "Mechanical Equipment of Buildings", Harding and Willard.

414 WORKS MANAGEMENT. Class 3 hours. Credit 3.

Prerequisite: Shop 302.

Required of Seniors in M. E., second semester.

This course covers the consideration of the entire work, including shops, department and office as follows: Factory location and arrangement, organization and administration, duties of line and staff, cost of production and methods of modern manufacture for the attainment of accuracy and of high speed, time study, motion study, standardization, etc. Employment of labor, labor problems and wage systems. Industrial betterment.

416 THESIS. Classwork and laboratory as assigned. Credit 4.

Prerequisite: All preceding subjects.

Elective for Seniors in M. E., second semester.

The student is assigned a problem requiring some individual research, investigation or design on his part for the purpose of demonstrating ability or aptitude for independent work.

418 ADVANCED MACHINE DESIGN. Drafting 3 to 12 hours. Credit 1 to 4.

Prerequisite: M. E. 304-305.

Elective for Seniors in M. E., second semester.

The work of design will come under some of the following subdivisions: Machine Tools, including fixtures and attachments; Boilers, including a study of the different types of boilers, furnaces, automatic stokers and of smoke abatement; Inter Combusion Engines, a more intensive study than is given in M. E. 305; Gas-Power Machinery, including gas producers, scrubbers, tar separators, washers, holders, etc.; Special Machinery.

420 REFRIGERATION. Class 2 hours. Credit 2.

Prerequisite: M. E. 306.

Elective for Seniors in M. E. and E. E., second semester.

A study of the theory and principles of construction and operation of the different types of apparatus used and of the different systems employed in refrigeration. This course includes icemaking, cold storage, and the further adaptation of refrigeration to the arts.

Text: "Mechanical Refrigeration", Macintire.

421 HYDRAULIC MACHINERY. Class 2 hours. Credit 2.

Prerequisite: C. E. 312.

Elective for Seniors in M. E. and E. E., second semester.

Theory, design, construction and installation of water wheels, pressure

engines, and of modern hydraulic turbines, and a study of their characteristics with a view to intelligent selection of the proper type and size for any given set of conditions. Water-power development.

Text: "Hydraulic Turbines", Daugherty.

424 HEATING AND VENTILATION. Class 2 hours. Credit 2.

Prerequisite: M. E. 305, or M. E. 311, second semester.

Elective for Seniors in M. E.

Required of Juniors in A. E. and Arch.

Theory and design of the various systems for the heating and ventilation of buildings; hot air, hot water, steam, and the plenum and vacuum systems. Central station or direct heating.

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DEPARTMENT OF SHOP PRACTICE

DEWITT HUNT, *Superintendent of Shops*
F. R. BRADLEY, *Assistant*
E. D. SODERSTROM, *Assistant*
L. K. COVELLE, *Assistant*
E. S. HULL, *Assistant*

The work in the shops is intended to serve (1) Students of engineering who require training in the methods of modern shop processes, and the principles underlying efficient production; (2) students of other divisions of the College who need a less extensive training in shop work; (3) those who expect to become teachers of manual training and of vocational subjects; (4) students, not of collegiate grade, who are seeking intensive training along some vocational line.

The most remarkable achievement in shop practice in the last decade has been the reduction of each tool process to its simplest and most usable form. All of the courses in shop practice are organized for the purpose of presenting the recognized elemental tool processes, and are intended to cover nearly all the general processes in each division. Lectures are given each week in every course outlining some important phase of the work to be covered.

SUBJECTS

SHOP 101 WOODWORK. Shop practice 3 hours. Credit 1.

Required of Freshmen in M. E., E. E., Ch. E. and C. E., first semester.

The student in this course is required to make a graded set of exercises in woodwork and receives practice in the use and care of hand tools. One-half time is given to wood-turning, and during the latter part of the semester patternmaking is taken up.

SHOP 104 WOODWORK. Shop practice 3 hours. Credit 1.

Prerequisite: Shop 101.

Required of Freshmen in Ch. E., C. E., E. E. and M. E. courses.

The student is required to make a graded set of wood patterns. As far as possible all exercises are selected from designs of machines to be built in the shops. The course also includes core box construction. Lectures are given on pattern shop equipment annd on special woodworking machinery.

The text used is "Wood Patternmaking", Purfield.

SHOP 108 CARPENTRY. Shop practice 3 hours. Credit 1.

Required of Freshmen students in agriculture.

A course in toolwork suitable for farm use, embracing sawing and planing to dimensions, fastening with nails and screws; the elements of framing and the cutting of rafters.

Text: "Carpentry", Griffith.

SHOP 111 BENCHWORK. Shop practice 4 hours. Credit 1⅓.

Prerequisite: Woodwork 11 and 12, or their equivalent.

This course covers the use of hand tools, the making of exercises involving planing, screw construction, curve forming, the dado joint and its various applications in half-lap construction, and includes elementary wood finishing.

Text: "Essentials of Woodworking", Griffith.

SHOP 112 CABINETMAKING. Shop practice 4 hours. Credit 1⅓.

Prerequisite: Shop 101.

The application of the use of woodworking machines is made in the completion of a class project involving mortise and tenon joints and paneling.

Text: "Woodwork for Secondary Schools", Griffith.

SHOP 113 MECHANICAL DRAWING. Drawing 4 hours. Credit 1⅓.

Prerequisite: Mech. Draw. 11 and 12.

This work is arranged for those who expect to teach. A series of problems arranged suitably in pedagogical sequence is given. The making of working drawings, tracing and blueprints, machine details and assembled drawings make up the subject matter of this course.

Text: "Applied Mechanical Drawing", Matthewson and Stewart.

114 MECHANICAL DRAWING. Drawing 4 hours. Credit 1⅓.

For teachers of trades and industries.

Prerequisite: Shop 113.

A study of orthographic projections, development of surfaces, intersections, isometric projections, and a brief study of house-planning. This course is planned to give the high school manual training teacher a general view of the field of mechanical drawing.

Text: "Applied Mechanical Drawing", Matthewson and Stewart.

SHOP 202 FORGE. Shop practice 3 hours. Credit 1.

Required of Sophomores in M. E., E. E. and C. E., second semester.

The student is required to make a graded set of forgings and the various types of welds. Tool-dressing, hardening and tempering, casehardening, and the heat treatment of carbon and high-speed tool steels is performed by the student. Lectures are given on the study of wrought metals and on heat treatment.

Text: "Plain and Ornamental Forging", Schwartzkopt.

SHOP 203 FOUNDRY. Shop practice 3 hours. Credit 1.

Required of Sophomores in M. E., E. E. and C. E., first semester.

The student is required to make a graded set of molds of patterns which, for the most part, are to be used on machines or apparatus that is to be built in the shops. Preparation and charging the cupola, pouring off heats and mixing and baking cores. Lectures are given on modern foundry practice.

Text: "Elementary Foundry Practice", Richards.

SHOP 205 AGRICULTURAL FORGING. Shop practice 3 hours. Credit 1.

Required of Sophomore students in agriculture.

The work in this course covers the shaping and welding of steel, the forging of farm machinery parts, drilling metals and other problems in forging adaptable to farm needs.

SHOP 206 ART FORGING. Shop practice 4 hours. Credit 1⅓.

Prerequisite: Forging 201.

An advanced course in forging, adapting the work to the needs of a high school forge shop where a large proportion of interest in the work is necessary.

Text: "Plain and Ornamental Forging", Schwartzkopf.

SHOP 207 ADVANCED WOOD-TURNING. Shop practice 4 hours. Credit 1⅓.

Prerequisite: For credit, Woodwork 21.

Practice in fancy turning, involving gluing up stocks for spindle turning, faceplate turning of cups, trays, covered boxes, table-legs, spiral turning and mandrel work.

SHOP 301 MACHINE SHOP. Shop practice 4 hours. Credit 1⅓.

Required of Juniors in M. E. and E. E., first semester.

SHOP 302 MACHINE SHOP. Shop practice 4 hours. Credit 1⅓.

Prerequisite: Shop 301.

Required of Juniors in M. E. and E. E., second semester.

SHOP 304 DESIGN. Class 2 hours. Credit ⅔.

Prerequisite: Mech. Draw. 11 and 12.

This is primarily a course in drawing in which the student designs pieces that may be made in the shop. The designing is done from a standpoint of adapting the model to shop classes. A tracing is kept of each piece designed and an exchange of shop drawings thus established. Students may make blueprints from any of these tracings and thus go out with a well established, graded set of models.

SHOP 305 CARE OF SHOP EQUIPMENT. Lecture and shop practice 2 hours. Credit ⅔.

Lectures and practice involved in the care of shop tools, saw-filing, sharpening of edge tools, care of machines and installation of shop equipment will be given in this course.

SHOP 306 METHODS OF ORGANIZATION IN SHOP TEACHING. Lecture 2 hours, practice 2 hours. Credit 2⅔.

Lectures on methods of teaching and organization of the subject matter are given each week, and students are required to assist in shop classes two hours each week for practice teaching.

SHOP 401 MACHINE SHOP. Shop practice 4 hours. Credit 1⅓.

Prerequisite: Shop 302.

Required of Seniors in M. E., first semester.

The student in these courses is required t omake a graded set of machine parts. As far as possible all exercises are selected from designs of machines that are to be built in the shops. Lectures are given on the art of cutting metals.

Text: "Machine Shop Practice", Kaup.

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TRAINING COURSE FOR TEACHERS OF TRADES AND INDUSTRIES

The course for the training of teachers of trades and industries in the A. and M. College is two years in length, and leads to a special certificate authorized by the State Board of Education.

Students applying for admission to this course must have 15 high school units to obtain the certificate, though men of trade experience and maturity are admitted as special students, and are given recommendations of merit. The demand for teachers of Trades in the State of Oklahoma is so closely related to the training of teachers of manual training that all teachers of manual training are urged to enroll in one of the regular vocational courses. These courses are for students of less than College grade, but give a good opportunity to men to obtain a trade connection and at the same time apply the principles of teaching obtained in College lecture-rooms. Where a man desiring to become a teacher already has trade experience, he is not required to spend so much time as student instructor in these vocational classes, but is required to spend a minimum of two hours each week in practice-teaching in these classes. The practice teaching required is at all times under the direct supervision of a teacher skilled in the trade being taught. Most of the candidates for training for trade teachers are gradudates from the Secondary School, and have had the required trade training in the vocational classes before entering the College.

The outline of the two-year course given below is modeled after the suggested work in the "Vocational Education Plans" of the State of Oklahoma, and meets the requirements of the State Board of Education for the certificate for special teachers.

In order to obtain the certificate for teaching vocational trade courses, the student will be required to spend ten weeks in each of the two trades during summer vacations. Related trades should be chosen; that is, carpentry and planing-mill work, auto mechanics and machine-shop work, etc. Certificates will not be issued until this trade experience is obtained.

The outline of the two-year course offered in teacher training work follows:

FIRST YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Eng. 101	3		3	Eng. 102	3		3
Physics 105	3	(2)	3⅔	Physics 106	3	(2)	3⅔
Edu. 104, Psychology	3		3	Edu. 103, Principles	2		2
Shop Math. 21, Arithmetic	3		3	Shop Math. 22, Arithmetic	3		3
Shop 111, Benchwork		(4)	1⅓	Shop 112, Cabinetmaking		(4)	1⅓
Shop 113, Mechanical Drawing		(4)	1⅓	Shop 202, Forging		(4)	1⅓
Shop 101, Patternmaking		(4)	1⅓	Shop 114, Mechanical Drawing		(4)	1⅓
Physical Education		(3)		Physical Education		(3)	
Military		(3)		Military		(3)	

SECOND YEAR

FIRST SEMESTER	Hours		Cr.
Eng. 207	3		3
Chem. 101	3	(4)	4⅓
Edu. 203, Vocational Education	3		3
Shop 305, Care of Shop Equipment		(2)	⅔
Shop 207, Advanced Turning		(4)	1⅓
M. E. 201, Mechanical Drawing		(6)	2
Shop 301, Machine-shop		(4)	1⅓
Shop 203, Foundry		(3)	1
Physical Education		(3)	
Military		(3)	

SECOND SEMESTER	Hours		Cr.
Eng. 208	3		3
Chem. 102	2	(4)	3⅓
Edu. 204, Educational Psychology	3		3
Shop 304, Design	2		⅔
Shop 306, Organization	2		2
Shop 302, Machine-shop		(4)	1⅓
Shop 108, Carpentry or			
Shop 206, Art Forging		(4)	1⅓
Physical Education		(3)	
Military		(3)	

TRADES COURSES

These two-year courses are given, as nearly as possible, on a production basis and fit men for actual work in their chosen lines. They have been established by the State and Federal Boards of Vocaitonal Education and are supported by State and Federal funds provided by the Smith-Hughes Law. The engineering plant of the College is available for this instruction. The two years of work may be used for entrance to A. and M. College.

OUTLINE OF TRADES COURSES

FIRST YEAR

FIRST SEMESTER	Cl.	Pr.
English 11	4	
General Science 11	2	(4)
Mechanical Drawing 13		(4)
Auto Mechanics 11		(16)
or		
Machine-shop Practice 11		(16)
or		
Cabinetmaking 11		(16)
Physical Education		(3)
Military		(3)

SECOND SEMESTER	Cl.	Pr.
English 12	4	
General Science 12	2	(4)
Mechanical Drawing 14		(4)
Auto Mechanics 12		(12)
and		
Forge 12		(4)
or		
Machine-shop Practice 12		(16)
or		
Cabinetmaking 12		(16)
Physical Education		(3)
Military		(3)

SECOND YEAR

FIRST SEMESTER	Cl.	Pr.
English 21	4	
Citizenship 21	1	
Shop Mathematics 21	4	
Mechanical Drawing 23		(6)
Auto Mechanics 21		(12)
and		
Forge 23		(4)
Machine-shop Practice 21		(16)
or		
Cabinetmaking 21		(16)
Military		(3)

SECOND SEMESTER	Cl.	Pr.
English 22	4	
Citizenship 22	1	
Shop Mathematics 22	4	
Mechanical Drawing 24		(6)
Auto Mechanics 22		(16)
or		
Machine-shop Practice 22		(16)
or		
Cabinetmaking 22		(16)
Military		(3)

SUBJECTS

MECHANICAL DRAWING 13. Practice 4 hours.

The elemental principles and processes of making accurate working drawings. All work is done from models. Applied drawing.

MECHANICAL DRAWING 14. Practice 4 hours.

The making of working drawings continued; threads, machine parts, tracing and blueprinting are included.

MECHANICAL DRAWING 23. Practice 6 hours.

This course is applied to the various trades courses as follows:

MACHINE-SHOP PRACTICE.—Students make drawings of machines, both detailed and assembled.
Text: "Mechanical Drafting", Miller.

MECHANICS.—Make working drawings of gasoline and auto engines and parts.
Text: "Automobile Repairing Made Easy", Page.

CABINET-MAKING.—Students make working drawings of cabinet construction and inside finish.

MECHANICAL DRAWING 24. Practice 6 hours.

A continuation of Mechanical Drawing 23.

FORGE 12. Shop practice 4 hours.

First blasksmithing—heating, shaping and welding. Tempering and hardening of steel. Pipefitting and drillpress work. Covered in lectures and practice.

FORGE 23. Shop practice 4 hours.

Prerequisite: Forge 12.

Soldernig, brazing and oxy-acetylene welding, toolmaking and types of casehardening.
Text: "Automobile Welding With Oxy-Acetylene Flame", Dunham.

AUTO MECHANICS 11. Auto repairing 16 hours.

Taking down engines, reassembling them and adjusting all parts.
Text: "Automobile Repairing Made Easy", Page.

AUTO MECHANICS 12. 12 hours.

General repairing of transmission, rear axle, steering-gear, wheels, etc.

AUTO MECHANICS 21. Auto repairing 12 hours, forging 4 hours.

Magneto, starting ignition and lighting, carburetor adjustment and study, running-in bearings, engine repair and replacement of parts. Forging includes soldering, brazing and oxy-acetylene welding.
Text: "Modern Starting, Lighting and Ignition Systems", Page.

AUTO MECHANICS 22. Auto repairing 12 hours, machine-shop 4 hours.

General auto repairing. In this semester students will work on actual repairing. Machine-shop applied to auto repairing.

MACHINE-SHOP PRACTICE 11. Machine-shop 16 hours.

The use of lathe, shaper and planer on exercise work.
Text: "Machine-Shop Practice", Kaup.

MACHINE-SHOP PRACTICE 12. Machine-shop 12 hours, Forge 12, 4 hours.

In this semester the student begins work on a productive basis. Several glue presses and lathes are to be built, and machine-shop practice students will do all of the machine-shop work on these.
Text: Same as for first semester.

MACHINE-SHOP PRACTICE 21. Machine-shop 12 hours, Forge 23, 4 hours.

The work of this semester consists entirely of toolmaking, involving use of

milling machine and grinder, and the heat treatment of steel in annealing, casehardening, etc.

Text: "Hardening, Tempering and Forging of Steel", Woodworth.

MACHINE-SHOP PRACTICE 22. Machine-shop practice 16 hours.

Machine work on productive basis, with cost of production of complete machine figured.

No text.

CABINET-MAKING 11, 12, 21, 22.

All Semesters.—The College furnishes the shops with sufficient cabinet-making work to keep many boys busy on productive work, such as storage cases, exhibit cases, chairs, desks and many other types of cabinet furnishing. After a student reaches a certain proficiency in his work he is paid for his time spent on productive work.

Text: "Woodwork for Secondary Schools", Griffith.

THE SCHOOL OF HOME ECONOMICS

RUTH MICHAELS, *Dean*

Courses of study in home economics have been developed as a result of social and economic changes. These changes have created a demand for an education which will prepare young women to be more serviceable in their homes and communities. In keeping with this idea, the school includes those subjects which will make not only specially trained workers, but also broadly educated young women. This school offers the following courses leading to a Bachelor of Science degree in home economics:

1. A general course in home economics for those students who desire to combine a comprehensive study of the home, together with the arts and sciences directly connected with its management.
2. A teacher's training course, approved by the Federal Board of Vocational Education, and arranged for those people desiring to teach home economics in the Smith-Hughes schools.
3. This teacher's course is also designed to meet the needs of related subject teachers in these schools.
4. A demonstration agent's course for the preparation of county and urban agents.
5. A two-year course in secondary vocational home economics granting a certificate.

During the Summer Session special courses are offered which will enable teachers to prepare themselves for the certificate examinations in these subjects, and which will also help them in planning courses of study, in the selection of equipment, and in the arranging of a laboratory for their schools. These courses will also include a discussion of the current problems arising in the field of home economics. For detailed announcement, see Summer School bulletin.

During Farmers' Week, courses are offered for the women who are interested in the study of household problems, and who can not regularly enroll for College attendance. Work of the following type will be handled by lectures, laboratory and demonstration methods: Feeding of various groups of people; methods of prepa-

ration and service of these foods; household sanitation; house-furnishing; house decoration; selection of materials, clothing, cutting and making garments.

Many positions are open for graduates of these various courses, not only in the teaching field, but as house, institutional managers, as demonstration agents in city and country, in college extension work, as dietitians, and in many other lines of work.

Students who are majoring in other lines of work and desire some knowledge of home economics as a part of their general education may elect such courses as they are prepared to carry.

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COURSES IN THE SCHOOL OF HOME ECONOMICS

The following outline of study represents the required and elective work in the School of Home Economics. The courses are numbered, beginning with one hundred in the Freshman year; odd numbers, as 101, represent the first semester's work in the subject, and the even numbers, as 102, the second semester's work. Subjects of the Sophomore, Junior and Senior years are numbered accordingly, two hundred for Sophomore, three hundred for Junior, and four hundred for Senior work. One hour of laboratory period is equivalent to one-third of a classroom period in estimating the number of hours per week to be taken.

The total requirements for graduation are 128 credits, exclusive of any credits given in physical education.

In the outline below, figures without parenthesis indicate hours of class-work, in parenthesis hours of laboratory work.

HOME ECONOMICS

FRESHMAN YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Eng. 101, College	3		3	Eng. 102, College	3		3
Chem. 101, Inorganic	3	(4)	4⅓	Chem. 102, Inorganic and Qualitative	2	(4)	3⅓
H. E. 105, Textiles and Clothing	2	(4)	3⅓	H. E. 106, Textiles and Clothing	2	(4)	3⅓
H. E. 103, Survey	1		1	Pub. Spk. 101, Essentials	2		2
Draw. 105, Industrial Art		(4)	1⅓	Draw. 106, Constructive Art		(4)	1⅓
Physics 103, Elementary	2	(4)	3⅓	Zool. 102, Economic	2	(4)	3⅓
or				or			
French 101	3		3	French 102	3		3
Physical Education		(3)		Physical Education		(3)	

SOPHOMORE YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Eng. 207, English Literature	3		3	Eng. 208, English Literature	3		3
Chem. 211, General Organic	3	(4)	4⅓	Chem. 212, General Organic	3	(4)	4⅓
H. E. 203, Food Study	2	(4)	3	H. S. 204, Food Study	2	(3)	3
Edu. 203, Psychology	3		3	Physiol. 202, Advanced	3	(2)	3⅔
Elective	3		3	Elective	2		2
Physical Education		(3)		Physical Education		(3)	

JUNIOR YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
H. E. 311, Food and Nutrition	3		3	H. E. 314, Dittetics	2	(3)	3
H. E. 307, History of Costume	2		2	H. E. 310, Dressmaking		(4)	1⅓
H. E. 309, Drafting and Dressmaking	1	(3)	2	Econ. 201, Principles	3		3
H. E. 313, Clothing Appreciation	1	(4)	2⅓	Hist. 306, Industrial History of United States	3		3
Elective	3		3	Elective	6		6

SENIOR YEAR

FIRST SEMESTER	Hours		Cr.
H. E. 415, The Home	1	(4)	2⅓
H. E. 421, Woman and the Family	3		3
H. E. 413, Advanced Tailoring	1	(4)	2⅓
Electives	7		7

SECOND SEMESTER	Hours		Cr.
H. E. 404, House Furnishing	1	(4)	2⅓
H. E. 418, Household Administration	3	(4)	4⅓
H. E. 424, Food Service	1	(4)	2⅓
Electives	7		7

JUNIOR YEAR (Smith-Hughes Teacher's Training)

FIRST SEMESTER	Hours		Cr.
H. E. 311, Nutrition	3		3
H. E. 307, History of Costume	2		2
H. E. 309, Drafting and Dressmaking	1	(5)	2
H. E. 313, Clothing Appreciation	1	(4)	2⅓
Bact. 303, Household	2	(4)	3⅓
Edu. 316, High School Methods	3		3
Electinves	2		2

SECOND SEMESTER	Hours		Cr.
H. E. 314, Dietetics	2	(3)	3
H. E. 310, Dressmaking		(4)	1⅓
H. E. 316. Special Methods	2	(2)	2⅔
Econ. 201, Principles of Economics	3		3
Edu. 310, Psychology of Adolescence	2		2
Electives	4		4

SENIOR YEAR (Smith-Hughes Teacher's Training)

FIRST SEMESTER	Hours		Cr.
H. E. 405, Home Economics Educaiton	4	(4)	5⅓
H. E. 418, Household Administration	3	(4)	4⅓
H. E. 415, The House	1	(4)	2⅓
Electives	3		3

SECOND SEMESTER	Hours		Cr.
H. E. 429, Child Welfare	3		3
H. E. 404, House Furnishing	1	(4)	2⅓
Edu. 305, History of Education	3		3
Elective	6		6

JUNIOR YEAR (Demonstration Agent)

FIRST SEMESTER	Hours		Cr.
Eng. 203, News-Writing	2		2
H. E. 311, Nutrition	3		3
H. E. 313, Clothing Appreciation	1	(4)	2⅓
Bact. 303, Household	2	(4)	3⅓
Electives	5		5

SECOND SEMESTER	Hours		Cr.
Eng. 204, Magazine-Writing	2		2
H. E. 314, Dietetics	2	(3)	3
Econ. 201, Principles of Economics	3		3
Hort. 104, Vegetable Gardening	2	(2)	2⅔
Electives	5		5

SENIOR YEAR (Demonstration Agent)

FIRST SEMESTER	Hours		Cr.
H. E. 415, The House	1	(4)	2⅓
H. E. 424, Food Service	1	(4)	2⅓
H. E. 423, Organization of Club Work	2		2
Dairy 409, Domestic Dairying	1	(3)	2
Electives	8		8

SECOND SEMESTER	Hours		Cr.
H. E. 404, House Furnishing	1	(4)	2⅓
H. E. 418, Household Administration	3	(4)	4⅓
H. E. 416, Experimental Cookery	1	(4)	2⅓
Electives	7		7

FOODS, COOKERY AND HOME MANAGEMENT

BERNICE WAIT, *Instructor*
GERTRUDE THOMAS, *Instructor*
DOROTHY COOK, *Instructor-Supervisor Practice House*

The department has well-equipped office, laboratories and lecture-room. The laboratories are finished in white enamel, and are equipped for the various lines of work, and adjoining the laboratories are storerooms and a dining-room; the latter furnished in attractive style is used in connection with the planning and serving of meals.

A fully equipped house near the campus is used as a practice house by the senior women, in the Household Administration course.

In the library may be found splendid reference books and bulletins, as well as the technical magazines.

SUBJECTS

203 FOOD STUDY. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: Chem. 102.

This course introduces the scientific and economic study of foodstuffs. The work in the laboratory consists of the experimental study of food processes as applied to the various foods, and the cost and food value of each. This is illustrated by the preparation of foods and the planning and serving of simple meals.

Text: "Food Products", Sherman.

204 FOOD STUDY (continued). Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: H. E. 203.

Continuation of Home Economics 203.

Text: "Food Products", Sherman.

311 NUTRITION. Class 3 hours. Credit 3.

Prerequisite: H. E. 204; Chem. 212; Physiol. 202.

A study of the processes of metabolism, the fuel value of foods, and the energy requirement of the body.

Text: "Chemistry of Foods', Sherman.

314 DIETETICS. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: H. E. 311.

The study of the diet of individuals and groups under varying conditions of health and environment; also the relation between the nutritive value and cost of foods and the service of meals.

Text: "Feeding the Family", Rose.

416 EXPERIMENTAL COOKERY. Class 1 hour, laboratory 4 hours. Credit 2⅓.

Study of individual problems. Each student selects some problem in foods or related subjects, giving the results in the form of a demonstration.

424 FOOD SERVICE. Class 1 hour, laboratory 4 hours. Credit 2⅓.

Prerequisite: H. E. 314.

This course is designed to give practice in handling food materials in large quantities, with special reference to lunchroom and cafeteria work

418 HOUSE ADMINISTRATION. Class 3 hours, laboratory 4 hours. Credit 4⅓.

Prerequisite: Bact. 303; H. E. 204, 314.

Course includes study of principles of scientific management of the house; budget-making; social, civic and economic duties and responsibilities of the homemaker. Laboratory work includes residence in Practice House, where detailed studies are made of time, of efficiency of methods, and of financial expenditures involved in the household processes.

Text: "Business of Household", Taber; "Housewifery", Balderston.

427 ADVANCED FOODS AND NUTRITION. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Prerequisite: H. E. 314; Chem. 313 and 314.

A study of the nutrition of the human body, and the physiological value of foods.

GENERAL COURSES

103 INTRODUCTION TO HOME ECONOMICS. Class 1 hour. Credit 1.

Study of women's educatoin with special reference to home economics and the vocations open in this field.

420 HISTORY OF HOME ECONOMICS. Class 2 hours. Credit 2.

Open to Seniors only. Study of home economics movement.

421 WOMAN AND THE FAMILY. Class 3 hours. Credit 3.

Prerequisite: H. E. 103; Econ. 308.

A study of woman's work and her industrial and economic conditions with reference to the home and society.

423 ORGANIZATION OF CLUB WORK. Class 2 hours. Credit 2.

Prerequisite: Preceding work in Agent's Training Course.

Study of methods used in the organization and management of club work among girls and women, as provided for under the Smith-Lever Bill.

429 CHILD WELFARE. Class 3 hours. Credit 3.

A course dealing with the various aspects of child care, such as physical and mental development, child hygiene, child laobr and recreation.

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TEXTILES, CLOTHING AND SHELTER

NORA A. TALBOT, *Professor*
LILLIAN CARSON, *Instructor*
MARY ELIZABETH TANDY, *Instructor*

The department is located in the east wing of the Woman's Building, and has well-equipped sewing laboratories, locker-room and office. The laboratories are furnished with sewing tables, sewing machines, electric irons, dress forms, drafting systems, looms, illustrative material, and textile exhibits.

SUBJECTS

105 TEXTILES AND CLOTHING. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Class study of textile fibers and fabrics, with discussions, demonstrations and practice in garment construction. Special emphasis is placed on comparative study of home and factory products.

Text: "Textiles", Woolman and McGowan.

Students who have not had the equivalent of one year of high school sewing will be expected to do two hours' extra work per week until they are able to meet requirements of regular class.

106 TEXTILES AND CLOTHING. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Prerequisite: H. E. 105; Chem. 101.

Continuation of H. E. 105.

The textile study is more advanced; it includes microscopic identification,

chemical testing, the use of adulterants, and testing for wearing qualities of fabrics.

The laboratory work is given in elementary dressmaking.

307 HISTORY OF COSTUME. Class 2 hours. Credit 2.

Costume study of various periods and countries, with reference to its influence on modern styles.

309 DRAFTING, MODELING AND DRESSMAKING. Class 1 hour, laboratory 3 hours. Credit 2.

Prerequisite: H. E. 106. H. E. 313 must be a parallel course.

Course includes drafting and alteration of patterns, study of line and form, making of tight-fitting lining. Modeling and making a dress designed in H. E. 313.

310 ADVANCED DRESSMAKING. Laboratory 4 hours. Credit 1⅓.

Continuation of H. E. 309.

Prerequisite: H. E. 309, 313.

313 CLOTHING APPRECIATION. Class 1 hour, laboratory 4 hours. Credit 2⅓.

Prerequisite: H. E. 106; Draw. 106.

Course dealing with application of art principles, such as design and color in clothing construction.

Text: "Textiles and Costume Design", E. P. Ellsworth.

404 HOUSE FURNISHING. Class 1 hour, laboratory 4 hours. Credit 2⅓.

Prerequisite: H. E. 415.

The principles of house decoration and furnishing, with application to individual problems.

Text: "Interior Decoration", Rolfe.

413 ADVANCED TAILORING. Class 1 hour, laboratory 4 hours. Credit 2⅓.

Prerequisite: H. E. 309.

Study of tailored garments. Designing and making a coat embodying the principles of line, texture and color as brought out in H. E. 313.

414 ART NEEDLEWORK. Laboratory 4 hours. Credit 1⅓.

Prerequisite: H. E. 106.

A study of embroidery and its application in individual problems.

415 THE HOUSE. Class 1 hour, laboratory 4 hours. Credit 2⅓.

Prerequisite: Draw. 106; Bact. 303.

A study of the requirements of the home as to surroundings, room arrangement and equipment from the viewpoint of an efficient homekeeper.

Text: "Domestic Architecture", Robinson.

419 MILLINERY. Laboratory 3 hours. Credit 1.

Prerequisite: H. E. 106, 313, 307.

A study of hats, the styles and shapes most becoming; frames, bows and trimmings. Renovation of materials and making over hats.

422 ADVANCED TEXTILES AND TEXTILE RESEARCH. Class 1 hour, laboratory 4 hours. Credit 2⅓.

Prerequisite: H. E. 106; Chem. 212.

TEACHER'S TRAINING

AURA KEEVER, *Instructor-Supervisor, Teacher's Training*
————————, *Instructor*

316 SPECIAL METHODS IN HOME ECONOMICS EDUCATION. Class 2 hours, laobratory 2 hours. Credit 2⅔.

Prerequisite: All preceding work in the Teacher's Training Course in Home Economics.

Course is designed for students intending to teach home economics. Study of home economics course in the various types of schools; equipment and maintenance of the work. Observation of teaching required.

Text: "Teaching Home Economics", Cooley.

405 HOME ECONOMICS EDUCATION. Class 4 hours, laboratory 4 hours. Credit 5⅓.

Prerequisite: H. E. 316.

Study of methods of instruction, with the planning of courses of study and work in demonstration and practice teaching.

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VOCATIONAL HOME ECONOMICS (Non-Collegiate)

HELEN E. CANT, *Instructor*

This course is offered to give practical training in home duties for girls who do not wish to enter a college course. The work covers practically all the home processes that the average housewife will meet in her home. The course is so designed that a girl will acquire not merely the mechanical skill involved in all her home duties, but that she will learn to combine intelligence and interest along with that skill. The entire Home Economics Department of the College is available for this instruction. Courses in piano, voice, violin, etc., are open to students. A certificate of completion is issued.

The course is established by the State and Federal Boards of Vocational Education, and is supported by State and United States funds provided by the Smith-Hughes Law.

The course is so arrnaged that a student may enter the third year of the Secondary School upon completion of the Vocational Home Economics course, usnig her vocational work as 8 out of the 15 units required for College entrance. The student must be at least 15 years of age, and must have completed the common school if the vocational course is used for college entrance.

FIRST YEAR

	Hours		Hours
English 11	5	English 12	5
Arithmetic 12	5	Physiology 11	3 (2)
Industrial Drawing 11	(4)	Industrial Drawing 12	(4)
H. E. 11, Plain Sewing	(6)	H. E. 12, Plain Sewing	(6)
H. E. 13, Food Study and Cookery	(6)	H. E. Food Study and Cookery	(6)
Physical Education	(3)	Physical Education	(3)

SECOND YEAR

	Hours			Hours	
English 21	4		English 22	4	
General Science 21	2	(4)	General Science 22	2	(4)
H. E. 21, Home Nursing and Hygiene	2	(2)	H. E. 22, House-Planning and Furnishing		(6)
H. E. 23, Dressmaking and Millinery		(6)	H. E. 24, Dressmaking and Millinery		(6)
H. E. 25, Cookery		(6)	H. E. 26, Housekeeping		(6)

SUBJECTS

H. E. 11 PLAIN SEWING. Laboratory 6 hours.

Principles of hand and machine sewing applied to simple undergarments. Mending and patching. Study of textiles and fabrics used. Care and repair of clothing. Hygiene of clothing.

Text: "Textiles and Clothing", McGowan and Waite.

H. E. 12 SEWING AND TEXTILES. Laboratory 4 hours.

Continuation of Home Economics 11.

H. E. 13 FOOD STUDY AND COOKERY. Laboratory 6 hours.

Study of foods covering source, purchase, food value and preparation for use. Laboratory work to correlate with classwork—practice in the preparation of foods, including cost and service.

Text: "Textbook of Cooking", Greer; "Food and Its Preparation", Dowd and Jamison.

H. E. 14 FOOD STUDY AND COOKERY.

Continuation of Home Economics 13.

H. E. 21 HOME NURSING AND HYGIENE. Class 2 hours, laboratory 2 hours.

A study of the home care of the sick; general care of the sickroom; emergencies.

Text: "American Red Cross Textbook on Home Hygiene.

H. E. 22 HOUSE PLANNING AND FURNISHING. Laboratory 6 hours.

Study of modern house from standpoint of sanitation, location, floor space, arrangement and cost. Practical course in house furnishing.

H. E. 23 DRESSMAKING AND MILLINERY. Laboratory 6 hours.

Study of textile fibers and fabrics; clothing appreciation; history of costume; economics of clothing. Elementary dressmaking; renovating of garments.

H. E. 24.

Continuation of Home Economics 23.

H. E. 25 ADVANCED COOKERY. Laboratory 6 hours.

Food study and cookery, including elementary dietetics, planning and serving of meals.

H. E. 26 HOUSEKEEPING. Laboratory 6 hours.

Care of the house, laundering, household accounts. Students to live in Practice House part of the time, where they may put into practice knowledge gained in class and laboratory, and have experience of managing a home.

Text: "Manual of Homemaking", Van Rennslaer, Rose and Canon.

INDUSTRIAL DRAWING 11. Practice 4 hours.

Principles of design and harmony of color developed through decorative arrangement and artistic rendering from observation of nature forms.

INDUSTRIAL DRAWING 12. Practice 4 hours.

Principles of constructive design and color applied to problems in industrial art, including projects ni paper, cardboard and cloth.

Non-vocational subjects (Eng. 11, 12, 21, 22; Arith. 12; Physiol. 11; General Science 21 and 22) are taught in the Secondary School. (See index for description of courses.)

THE SCHOOL OF SCIENCE AND LITERATURE

L. L. LEWIS, *Dean*

The courses in the School of Science and Literature offer a sound basis for training in mathematics, chemistry, physics, biological sciences and in the languages. It is also becoming more and more evident that one's education should include some work in history, social science and in economics. These related subjects give a better understanding of one's duties and responsibilities as a citizen, and a broad and liberal view of the relations of the individual to society.

The work of the school is presented to the prospective student along three lines. The Freshman year is the same for those electing the General Science and the Exact Science work. For those electing the General Literature course, zoology and economics may be substituted for the mathtematics of this year. With this minor difference in the Freshman year, the differentiation of the work in the three divisions appears in the Sophomore year. First, the general science work, where biological and chemical sciences represent a large part of the science work offered; second, the exact science work, represented largely by mathematics, physics and chemistry; and third, in the general literature division, where work in English history and the foreign languages represents a large portion of the course, but opportunities are offered for work in sociology, economics and education. Where other courses offer vocational subjects, the science and literature work, by means of groups of electives, offer special opportunities for work in either the sciences or language. Opportunities for selecting work of this character meets the needs of students desiring a liberal education as a foundation for professional courses, as law or medicine, as well as those students who desire to secure a training that is well balanced in respect to literature, science and cultural subjects.

ELECTIVES

Students who elect either the exact or general science work will

be permitted to substitute in either of these courses work selected from the other course, and to some extent work selected from other courses offered in the College. Such substitutions will be permitted after consultation with the Dean of the school, and approval of the Committee on Substitutions.

Electives in the general literature group are so arranged as to permit the student to elect along the following lines: Foreign language, English, social science, history, economics or science. Students should select their electives along one of these lines.

RELATIONS TO OTHER SCHOOLS

Besides the instruction given to students in the School of Science and Literature, the instructional force gives much of the collateral work offered in the other schools of the College. Other schools of the College cooperate in giving some of the work offered in the School of Science and Literature.

EQUIPMENT

The departments represented in the School of Science and Literature are well equipped to give the work they offer. The laboratories in the Departments of Bacteriology, Botany, Chemistry, Physics and Physiology are well provided with the necessary scientific equipment to give the work offered. In January, 1920, the Department of Chemistry moved into the new Chemistry Building. The additnonal room and equipment afforded by this building will give increased facilities to students of chemistry in all departments.

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COURSES IN THE SCHOOL OF SCIENCE AND LITERATURE

The following outline of study represents the required and elective work in the School of Science and Literature. The courses are numbered, beginning with one hunred in the Freshman year; odd numbers, as 101, represent the first semester's work in the subject and the even numbers, as 102, the second semester's work. Subjects of the Sophomore, Junior and Senior years are numbered accordingly—two hundred for Sophomore, three hundred for Junior and four hundred for Senior work. One hour of laboratory period is equivalent to one-third of a classroom period in estimating the number of hours per week to be taken.

The total requirements for graduation are 128 credits, exclusive of any credits given in military science and physical education.

In the outline below, figures without parenthesis indicate hours of classwork; in parenthesis hours of laboratory work.

Any student may elect the work of the Reserve Officers Training Corps, which counts 2 hours credit in each semester of the Junior and Senior years. This credit will be accepted as a substitute for elective work, or for required work by special arrangement.

FRESHMAN YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Eng. 101, College	3		3	Eng. 102, College	3		3
Chem. 101, Inorganic	3	(4)	4⅓	Chem. 102, Inorganic	2	(4)	3⅓
Latin 101, Caesar or Foreign Language 101	3		3	Latin 102, Caesar or Foreign Language	3		3
Math. 105, Algebra	4		4	Math. 108, Trigonometry	3		3
Draw. 101, Freehand		(4)	1⅓	Draw. 102, Freehand		(4)	1⅓
Physical Education		(3)		Pub. Spk. 101	2		2
Miltary Scence		(3)		Physical Education		(3)	
				Military Science		(3)	

GENERAL SCIENCE

SOPHOMORE YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Chem. 201, Qualitative Analysis	2	(6)	4	Chem. 210, Quantitative Analysis	2	(6)	4
Eng. 201, Advanced Composition or Eng. 203, News-Writing	2		2	Eng. 202, Advanced Composition or Eng. 204, Magazine-Writing	2		2
Zool 201, General	3	(4)	4⅔	Zool. 210, Vertebrate	2	(4)	3⅓
Physical Education (Women)		(3)		Math. 204. Astronomy	2		2
Military Science		(3)		Phyiscal Education (Women)		(3)	
Elective			5⅔	Military Science		(3)	
				Elective			4⅔

SUGGESTED SOPHOMORE ELECTIVES

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Pub. Spk. 201	2		2	Pub. Spk. 202	2		2
Eng. 205, Current Literature	1		1	Eng. 206, Current Literature	1		1
Edu.	3		3	Edu.	3		3
Hist.	3		3	Hist.	3		3
Econ. 201, Principles	3		3	Econ. 206, Business Management	3		3
Physics 320, Lecture Course	2		2	Physics 430, Meteorology	2		2
Physics 201, Engineering	4	(3)	5	Physics 202, Engineering	4	(3)	5

JUNIOR YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Bot. 101, General	2	(4)	3⅓	Bot. 102, General	2	(4)	3⅓
Chem. 311, Organic	3	(4)	4⅓	Chem. 312, Organic	3	(4)	4⅓
Ento. 202, General	3	(2)	3⅔	Bact. 310, General	3	(4)	4⅓
Foreign Language	3		3	Hist. 306, Industrial	3		3
Elective			2	Foreign Language	3		3

SENIOR YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Bact. 403, Immunity	3	(4)	4⅓	Bact. 404, Immunity	3	(4)	4⅓
Edu. 203, Psychology	3		3	Edu. 204. Etucational Psychology	3		3
Zool. 401, General Biology	3	(2)	3⅔	Bot. 304, Plant Physiology	2	(2)	2⅔
Foreign Language	2		2	Foreign Language	2		2
Elective			3	Elective			4

SENIOR AND JUNIOR ELECTIVES

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Bact. 405, Agricultural	2	(4)	3⅓	Bact. 402, Sanitary Science	3		3
Chem. 401, Advanced Inorganic	3	(6)	5	Chem. 402, Physical	2	(6)	4
Chem. 305, General Organic	3	(7)	5⅓	Ento. 306, Apiculture	3	(2)	3⅔
Bot. 401, Advanced Systematic	1	(6)	3	Physiol. 202, Advanced	3	(2)	3⅔
Ento. 303, Horticultural	2	(4)	3⅓	Zool. 402, Embryology	2	(4)	3⅓
				Chem. 304, Advanced Quantitative	2	(6)	4

EXACT SCIENCE

SOPHOMORE YEAR

FIRST SEMESTER	Hours		Cr.
Eng. 201, Advanced Composition or			
Eng. 203, News-Writing	2		2
Chem. 201, Qualitative Analysis	2	(6)	4
Physics 201, General	3	(2)	3⅔
Math. 207, Analytics and Calculus	5		5
Physical Education (Women)		(3)	
Military Science		(3)	

SECOND SEMESTER	Hours		Cr.
Eng. 202, Advanced Composition or			
Eng. 204, Magazine-Writing	2		2
Chem. 210, Qualitative Analysis	2	(6)	4
Physics 202, General	3	(2)	3⅔
Math. 208, Calculus	5		5
Physical Education (Women)		(3)	
Military Science		(3)	

JUNIOR YEAR

FIRST SEMESTER	Hours		Cr.
Chem. 311, Organic	3	(4)	4⅓
Foreign Language	3		3
Physics 303, Advanced	3	(3)	4
Math. 301, Differential Equations	3		3
Pub. Spk. 201	2		2

SECOND SEMESTER	Hours		Cr.
Chem. 312, Organic	3	(4)	4⅓
Foreign Language	3		3
Physics 304, Advanced	3	(3)	4
Math. 302, Differential Equations	3		3
Hist. 306 or			
Edu. 412	2		2

SENIOR YEAR

FIRST SEMESTER	Hours		Cr.
Chem. 401, Advanced Inorganic	3	(6)	5
Physics 403, Advanced	3	(3)	4
Foreign Language	2		2
Edu. 203, Psychology	3		3
Chem. 321, Geology	2		2

SECOND SEMESTER	Hours		Cr.
Chem. 402, Physical	3	(6)	5
Physics 404, Advanced	2	(3)	3
Physics 420, Teaching of Physics	1		1
Edu. 204, Educational Psychology	3		3
Foreign Language	2		2
Math 204, Astronomy	2		2

GENERAL LITERATURE

FRESHMAN YEAR

FIRST SEMESTER	Hours		Cr.
Eng. 101, College	3		3
Chem. 101, Inorganic	3	(4)	4⅓
Foregin Language	3		3
Math. 105, Algebra or			
Zool. 201, General	3	(4)	4⅓
Draw. 101, Freehand		(4)	1⅓
Edu. 104, Psychology	3		3
Physical Education (Women)		(3)	
Military Science		(3)	

SECOND SEMESTER	Hours		Cr.
Eng. 102, College	3		3
Chem. 102, Inorganic	2	(4)	3⅓
Foreign Language	3		3
Math. 108, Trigonometry or			
Econ. 201, Principles of Economcis	3		3
Draw. 102, Freehand		(4)	1⅓
Pub. Spk. 101, Essentials	2		2
Physical Education (Women)		(3)	
Military Science		(3)	

SOPHOMORE YEAR

FIRST SEMESTER	Hours		Cr.
Eng. 201, Advanced Composition or			
Eng. 203, News-Writing	2		2
Eng. 207, English Literature	3		3
Foreign Language	3		3
Hist. 205, English	3		3
Physics 105, General	3	(2)	3⅔
Military Science		(3)	
Elective	1		1⅔

SECOND SEMESTER	Hours		Cr.
Eng. 202, Advanced Composition or			
Eng. 204, Magazine and Editorial-Writing	2		2
Eng. 208, English Literature	3		3
Foreign Language	3		3
Hist. 206, English	3		3
Physics 106, General	3	(2)	3⅔
Military Science		(3)	
Elective	1		1

SOPHOMORE ELECTIVES

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Foreign Language	3		3	Foreign Language	3		3
Agriculture	2	(4)	3⅓	or			
or				Agriculture	3		3
Home Economics	2	(4)	3⅓	Home Economics	3		3
Eng. 205, Current Literature	2		2	Eng. 206, Current Literature	2		2
Pub. Spk. 201, Debate	2		2	Math. 204, Astronomy	2		2
Chem. 311, Advanced Organic	3	(4)	4⅓	Pub. Spk. 202, Oratory	2		2
Physics 320, Lecture Course	2		2	Chem. 312, Advanced Organic	3	(4)	4⅓
				Physics 430, Meteorology	2		2

JUNIOR YEAR

FIRST SEMESTER	Hours	Cr.	SECOND SEMESTER	Hours	Cr.
Eng. 303, American Literature	2	2	Eng. 304, American Literature	2	2
Foreign Language	3	3	Foreign Language	3	3
Hist. 307, United States	3	3	Hist. 308, United States	3	3
Edu. 203, Psychology	3	3	Edu. 204, Educational		
Elective	5	5	Psychology	3	3
			Elective	5	5

SUGGESTED JUNIOR ELECTIVES

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Foreign Language	3		3	Foreign Language	3		3
Eng. 307, Bible Literature	2		2	Eng. 308, Bible Literature	2		2
Pub. Spk. 301, Extempore	2		2	Pub. Spk. 302, Literary			
Edu. 421, Sociology	2		2	Interpretation	2		2
Bot. 101, General	2	(4)	3⅓	Edu. 422, Rural Sociology	2		2
Eng. 405, The Novel	2		2	Bot. 102, General	2	(4)	3⅓
Eng. 407, Masterpieces	2		2	Eng. 406, The Novel	2		2
				Eng. 408, Masterpieces	2		2

SENIOR YEAR

FIRST SEMESTER	Hours	Cr.	SECOND SEMESTER	Hours	Cr.
Eng. 401, Carlyle and Ruskin	3	3	Eng. 404, Drama	3	3
Foreign Language	3	3	Foreign Language	3	3
Hist. 401, Modern Europe	3	3	Hist. 402, Modern Europe	3	3
Elective	7	7	Elective	6	6

SUGGESTED SENIOR ELECTIVES

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Foreign Language	3		3	Foreign Language	3		3
Pub. Spk. 303, Oral English	2		2	Pub. Spk. 304, Debating Seminar	2		2
Zool. 401, General Biology	2	(4)	3⅓	Bact. 310, General	3	(4)	4⅓
Eng. 403, Romantic Movement	3		3	Eng. 402, Victorian Poets	3		3
Edu. 405, Ethics	2		2	Hort. 408, General	3	(2)	3⅔
Hist. 405, Government	3		3	Hist. 406, Political Theory	3		3

Three years of a foreign language will be required for graduation, two of these years' work being in the same language.

Where free electives are offered, students may substitute 8 credits in music and art toward graduation.

DEPARTMENT OF BACTERIOLOGY AND ZOOLOGY

L. L. LEWIS, *Professor*
C. H. McELROY, *Assistant Professor*
R. O. WHITENTON, *Associate Professor*
E. E. HARNDEN, *Assistant*
RUBY LAUDERDALE, *Assistant*
OTTO FRIEDEMANN, *Student Assistant*

The Department of Bacteriology and Zoology occupies quarters on the second floor of the Library Building. The equipment of microscopes, simple and compound; lanterns, microtomes, incubators,

etc., is ample for the accommodation of all classes. The department is also well-equipped with dissectible models and skeletons as well as charts for both physiology and zoology. The department gives not only the work in bacteriology and zoology required in the science courses, but a large amount of teaching is required in other departments, as in the Schools of Agriculture, Home Economics, etc. The policy of the Department of Bacteriology and Zoology is to adapt the work to the needs of students coming from other schools of the College. The following work is offered by the department in the regular College courses:

SUBJECTS

202 BACTERIOLOGY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Prerequisite: Chem. 101, 102.

This course is designed as a general course in bacteriology for agricultural students. This course is required, and is a prerequisite for any of the advanced courses offered to agricultural students. Subject matter is such as to be of practical application in the work of agricultural students.

303 HOUSEHOLD BACTERIOLOGY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Prerequisite: Chem. 101, 102.

Required: Home Economics.

This course is given for the students in home economics, and as far as possible is made to apply to the work in which these students are most interested.

Text: "Household Bacteriology", Buchanan.

304 SANITARY SCIENCE. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Prerequisite: Bact. 303.

Required in demonstration agents' work.

This work is designed to meet the needs of students preparing themselves for leadership as demonstration agents in agricultural work. Both the class and laboratory work will be selected with the idea of having the students see the application of the course to problems as they affect the home, school, community, etc.

310 GENERAL BACTERIOLOGY. Class 3 hours, laboratory 4 hours. Credit 4⅓.

Prerequisite to all advanced courses in bacteriology.

Required: General science.

Elective: School of Commerce and Marketing, School of Education.

This course covers the general principles of the science and enables the student to understand the importance of bacteria as related to disease, their economy in nature and their relation to the various industries, such as dairying, soil fertility, fermentation, etc.

Text: Hiss and Zinser; Kendall.

311 DAIRY BACTERIOLOGY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Prerequisite: Bact. 310.

Required: Students in dairying.

Elective: All agricultural students, and Science and Literature.

A study of the bacteriology of milk and of milk products. Special attention will be given to sanitation and animal diseases as they may affect the milk supply.

Text: "Dairy Bacteriology", Russell and Hastings.

402 SANITARY SCIENCE. Class 3 hours. Credit 3.

Prerequisite: None.
Required: Civil engineering.
Elective: None.

This course is given especially to students in civil engineering. The course deals largely with water supply, sewage disposal and the different methods of treating sewage. Time is given at the beginning of the course to familiarize the student with the general nature and relationship of bacteria to disease.

403 TECHNICAL BACTERIOLOGY. Class 3 hours, laboratory 4 hours. Credit 4⅓.

Prerequisite: Bact. 310.
Required: Science and Literature.
Elective: School of Education.

This course is a continuation of 310 and deals more particularly with the relation of bacteria to disease processes. Work is offered in the production of vaccines, laboratory disagnosis, etc.

404 ADVANCED WORK IN IMMUNITY. Class 3 hours, laboratory 4 hours. Credit 4⅓.

Prerequisite: Bact. 310 and 403.
Required: Science and Literature.
....lective: Education.

This semester's work completes a year's work in technical bacteriology in which the student is given theoretical and practical training in work along sero-diagnostic and immunological lines. This course is intended to fit a student for taking up original problems in the subject in the capacity of an investigator or in the ever-broadening field of municipal work.

Text: Simon, Emery, Zinsser, Kolmer.

405 AGRICULTURAL BACTERIOLOGY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Prerequisite: Bact. 310 or 202.
Elective: Agriculture and Science and Literature.

This course is offered for the benefit of science students and the students of agriculture who may desire to familiarize themselves to some extent with the importance of bacterial activities to certain phases of argicultural work. Some industrial applications of bacteriology should be understood by students who have interested themselves in the science.

407-408 THESIS.

Conference one hour per week; laboratory work will vary, depending upon the character of the work. The credit will necessarily vary, depending upon the character of the work, but will not exceed 4 units for work submitted for a bachelor degree. The object of the course will be to have the student make practical application of bacteriological methods to research problems.

PHYSIOLOGY

202 ADVANCED PHYSIOLOGY. Class 3 hours, laboratory 2 hours. Credit 3⅔.

Prerequisite: Secondary School physiology and Freshman chemistry.

Required: Home Economics.
Elective: Science and Literature.
Particular attention is given to the physiology of nutrition and to hygiene.
Text: "Human Body", Martin.

315 COMPARATIVE PHYSIOLOGY. Class 2 hours. Credit 2.
Prerequisite: Vet. Sci. (Anatomy) 201.
Required: Animal Husbandry.
Elective: All agricultural students.
Special attention will be given to human as well as animal physiology. Normal functions of such organs of the animal body as are actively concerned in feeding, including digestion, and organs of elimination, as affect nutrition.
Text: "Veterinary Physiology", Smith.

ZOOLOGY

102 ECONOMIC ZOOLOGY. Class 2 hours, laboratory 4 hours. Credit 3⅓.
Required: Home Economics.
This course is a general survey of the animal kingdom with emphasis on economic value.
Text: "Economic Zoology", Daugherty.

201 GENERAL ZOOLOGY. Class 3 hours, laobratory 4 hours. Credit 4⅓.
Required: General science.
....lective: General literature, Education, Commerce and Marketing.
This course is designed to give an outline knowledge of the animal kingdom, as well as of the important biological laws. Representative types of the important phyla will be studied in the laboratory. The economic species and the principles underlying development wll be especally emphasized.
Text: "College Zoology", Hegner.

207 GENERAL ZOOLOGY (for Agricultural students). Class 2 hours, laboratory 4 hours. Credit 3⅓.
Required: All agricultural students.
This course is similar to Zoology 201, but adapted to the needs of the students in agriculture.

210 VERTEBRATE ZOOLOGY. Class 2 hours, laboratory 4 hours. Credit 3⅓.
Prerequisite: Zool. 201 or equivalent.
Required: General science.
Elective: Education, Commerce and Marketing.
This course is primarily comparative anatomy in the laboratory work, but the lectures will deal with classification, distribution, etc., of the vertebrates with special emphasis on Oklahoma species.

401 GENERAL BIOLOGY. Class 3 hours, laboratory 2 hours. Credit 3⅔.
Prerequisite: Zool. 201.
Required: General science.
Elective: General literature, Education, Commerce and Marketiing.
This course deals with the problems of variation, inheritance and evolution.
Text: "Evolutionary Biology", Dendy.

402 EMBRYOLOGY. Class 2 hours, laboratory 4 hours. Credit 3⅓.
Prerequisite: Zool. 201 or equivalent.
Required: Veterinary Medicine.
Elective: General science, Education, Commerce and Marketing.
This is a study of the development of vertebrates, using the chick and pig as types.

DEPARTMENT OF BOTANY

CHAS. O. CHAMBERS, *Professor*
C. D. LEARN, *Assistant Professor*

In an agricultural college, botany is a fundamental study. Agriculture has to do chiefly with plants, and botany deals with plants in their broadest aspect; their relations to soil, climate and culture. It deals with the origin and distribution of plants in general; the origin and improvement of our cultivated plants; the laws of breeding and selection by which they have been brought to a higher state of perfection.

Plant physiology aims to show the relation of plant-life to chemistry and biological laws. Plant pathology acquaints us with the chief diseases which threaten our crops and play havoc in orchard, field and garden.

This department, located on the third floor of Morrill Hall, has classroom and laboratories well equipped to accommodate classes in all lines—microscopes, microtomes and reagents for classwork, charts and balopticon for lecture-room. An extensive herbarium of native Oklahoma species is being constantly increased.

The aim and purpose is to afford:

1. General culture and acquaintance with plant life.
2. A basis for agricultural and horticultural studies.
3. Training for those who expect to teach botany or agriculture in secondary schools.

SUBJECTS

101 GENERAL BOTANY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Elective: Education, general science and literature.

The principles of plant structure studied from the standpoint of function; an introduction to physiology, genetics and ecology.

Text: "College Botany", Gager.

102 GENERAL BOTANY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Prerequisite: Bot. 101.

General morphology of the principles natural groups of plants from the standpoint of evolution from the lower to high forms, their structure, habits and relationships; an introduction of systematic botany.

Text: "College Botany", Gager.

106 AGRICULTURAL BOTANY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Required of all agricultural students.

Fundamental principles of botany, with emphasis on the practical application of these principles.

Text: "Botany for Agricultural Students", Martin.

201 AGRICULTURAL BOTANY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Required of all agricultural students.

A continuation of Botany 106 with a survey of the plant groups in which the feed and food plants are found.

Text: Same as for Botany 103, Martin.

206 SYSTEMATIC BOTANY. Class 1 hour, laboratory 6 hours. Credit 3.

Prerequisite: Bot. 101, 102 or 104.

A taxonomic study of flowering plants.

Text: "Manual Botany", Gray (Seventh Edition).

303 GENETICS. Class 3 hours. Credit 3.

Prerequisite: Bot. 102 or 206, or Zool. 201.

A study of the principles of variation, selection, heredity, and their application to animal and plant breeding.

Text: "Heredity", Locks.

304 PLANT PHYSIOLOGY. Class 2 hours, laboratory 2 hours. Credit 2⅔.

Prerequisite: Bot. 101, 102 or 104.

A study of the vital processes in the higher plants.

Text: "Plant Physiology", Duggar.

305 PATHOLOGY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

A study of fungous diseases, both host and parasite.

Text: "Fungous Diseases of Plants", Duggar.

401 ADVANCED SYSTEMATIC BOTANY. Class 1 hour, laboratory 6 hours. Credit 3.

Prerequisite: Bot. 206.

A continuation of 206, with special emphasis on economic groups.

Text: "Manual of Botany", Gray (Seventh Edition).

410 TEACHING OF BOTANY. Class 1 hour. Credit 1.

For those who expect to teach botany.

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DEPARTMENT OF CHEMISTRY

HILTON IRA JONES, *Professor*
ROBERT DuBOIS, *Assistant Professor*
GLADYS TREVITHICK, *Instructor*
SYLVAN WOOD, *Graduate Assistant*
I. H. NELSON, *Storekeeper*

The purpose of the instruction in the Department of Chemistry is four-fold:

1. To meet the present demand for chemical engineers and trained analysts, and to lay a broad foundation for graduate study and a career in chemistry.

2. To prepare teachers of chemistry for the secondary schools.

3. To offer such courses in chemistry as are required by the various schools of the College.

4. To give a comprehension and appreciation of the scientific method and those fundamental processes so essential to any under-

standing of the phenomena of nature and the progress of human industry in order that the study may be worth while if simply taken for its cultural value.

The Department of Chemistry is housed in a new, modern laboratory erected and furnished by the Board of Agriculture at a cost of $120,000.00. This furnishes approximately 14,000 square feet of floor space, providing lecture auditorium, small classrooms, separate laboratories for each of the chief branches of chemistry; library, storerooms, offices, rooms for research, and all the appurtenances found in the best modern laboratories. The entire furnishings and equipment are up to the standard of the building.

SUBJECTS

101 GENERAL INORGANIC CHEMISTRY. Class 3 hours, laboratory 4 hours. Credit 4⅓.

Prerequisite: Elementary physics.

Required of all Freshmen, and prerequisite for all other courses in the department.

A course dealing with the fundamental principles of the science. Lectures, written exercises and laboratory work.

102 GENERAL INORGANIC CHEMISTRY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Prerequisite: Chem. 101, or equivalent.

Required of all Freshmen.

A continuation of course 101, mainly devoted to the metals, and the beginnings of qualitative analysis.

201 QUALITATIVE ANALYSIS. Class 2 hours, laboratory 6 hours. Credit 4.

Prerequisite: Chem. 102, or its equivalent.

Required of Sophomores in the courses in general and exact science in the School of Science and Literature, and in the courses in chemical engineering. A course in both acid and basic analysis, with special emphasis placed upon the industrial phases of analysis and the fundamental theories underlying the same. Lectures, written exercises and laboratory work.

205 ELEMENTARY ORGANIC CHEMISTRY. Clsas 2 hours, laboratory 3 hours. Credit 3.

Required of all Sophomores in the School of Agriculture.

A course dealing with the chief types of organic compounds and their relation to foods and feedstuffs, and physiological processes. Lectures, written exercises and laobratory work.

206 QUANTITATIVE AGRICULTURAL CHEMISTRY. Class 2 hours, laobratory 6 hours. Credit 4.

Prerequisite: Chem. 201 or 207.

Required of all Sophomores in the School of Agriculture.

An elementary study of the simpler quantitative methods involving the care and use of the analytical balance, exercises in the gravimetric and volumetric analysis of pure substances of known composition; the preparation and standardization of volumetric solutions, atmosphere and its relation to plant growth, the analysis of soils, fertilizers and plant products. Lectures, reports, written exercises and laboratory work.

207 QUALITATIVE ANALYSIS. Class 1 hour, laboratory 3 hours. Credit 2.

Prerequisite: Chem. 102.

Required of Sophomores in the School of Agriculture.

A briefer course, dealing with the same subject matter and employing the methods indicated under 201.

208 ELEMENTARY FOOD CHEMISTRY. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: Chem. 205.

A course dealing with the quantitative methods employed in the study of the materials immediately related to daily life. Air, water and the more common food materials are made the subject of numerous experiments to illustrate their composition and properties. The estimation of chemical compounds in food products is especially emphasized.

210 GENERAL QUANTITATIVE ANALYSIS. Class 2 hours, laboratory 6 hours. Credit 4.

Prerequisite: Chem. 201.

Required of Sophomores in the courses in general and exact science in the School of Science and Literature, and in the course in chemical engineering.

A general study of the fundamental analytical methods, both gravematric and volumetric, but without reference to any specific industry. Methods as in 206.

211-212 GENERAL ORGANIC CHEMISTRY. Class 3 hours, laboratory 4 hours. Credit 4⅓.

Prerequisite: General chemsitry.

Required of all Sophomores in the School of Home Economics.

A systematic study of the general principles of organic chemistry, with special reference to the application of organic chemistry to foods and human physiology.

304 ADVANCED QUANTITATIVE ANALYSIS. Class 2 hours, laboratory 6 hours. Credit 4.

Prerequisite: Quantitative analysis and organic chemistry.

Open to all who are prepared to handle the work.

A course designed to familiarize the student with the analytical methods employed in commercial laboratories, and required in all advanced work in chemistry.

305 GENERAL ORGANIC CHEMISTRY. Class 3 hours, laboratory 7 hours. Credit 5⅓.

Prerequisite: Chem. 201, or its equivalent. Quantitative work is desirable, though not absolutely essential.

A systematic study of the general principles of organic chemistry as illustrated by the discussion and preparation of the more important class types of both the aliphatic and aromatic series of compounds. Special attention is drawn to those compounds that have commercial importance as well as purely scientific interest, thus enabling the student to see the relationship between this science and other fields of knowledge.

310 FOOD ANALYSIS. Class 1 hours, laboratory 4 hours. Credit 2⅓.

Prerequisite: Organic chemistry and quantitative analysis.

Elective for Juniors and Seniors in the School of Science and Literature, and to all prepared to take the work.

The qualitative and quantitative analysis of food materials, the detection and estimation of impurities, adulterations, coloring matter, etc., in accordance with the methods employed in the State and Federal Government service.

311-312 ADVANCED ORGANIC CHEMISTRY. Class 3 hours, laboratory 4 hours. Credit 4⅓.

Prerequisite: Quantitative analysis.

Required of Juniors in the courses in general and exact science in the School of Science and Literature, and in the courses in chemical engineering.

A more extended and systematic treatment of the compounds of carbon than is possible in Chem. 305, together with appropriate discussions of the theories of reaction. The laboratory work includes a study of the synthesis and analysis of a large number of carbon compounds of interest in the arts and industries, including dyestuffs, perfumes and drugs.

313-314 PHYSIOLOGICAL CHEMISTRY. Class 3 hours, laboratory 4 hours. Credit 4⅓.

Prerequisite: Analytical and roganic chemistry.

Elective for Juniors and Seniors in the Schools of Science and Literature and Home Economics, and offered to all students prepared to take the work.

A study of the synthetic and analytical reactions that accompany the physiological changes in animals and plants. The chemical properties of food and body substances, and their general specific characteristics; the behavior of enzymes and their functions; the changes that take place in digestion, assimilation and elimination are among the topics considered.

321 GEOLOGY. Class 2 hours. Credit 2.

Prerequisite: General chemistry.

Required of Sophomores in the course in general literature, and Seniors in the course in exact science in the School of Science and Literature.

An introductory course including an elementary study of constructive and destructive forces, the origin of the soil, the materials of the earth's crust, and the manner of their occurrence; the chemical and mechanical changes brought about by geological agencies, and the surface features to which they give rise.

322 DETERMINATIVE MINERALOGY AND BLOWPIPE ANALYSIS. Class 1 hour, laboratory 4 hours. Credit 2⅓.

Prerequisite: Chem. 201, 207.

Required of Juniors in the Department of Civil Engineering.

A study of the physical properties of typical mineral species, and of the dry reactions of the elements, with their application to the identification of unknown minerals.

327 PETROLEUM TECHNOLOGY. Class 3 hours, laboratory 6 hours. Credit 5.

Prerequisite: General chemistry. Organic and analytical chemistry are highly desirable. Students must consult the instructor before registering for this course.

A study of the origin, occurrence and physical properties of petroleum, and of the laboratory methods for the estimation of the value of crude oil and the various products obtained by refining it, including specific gravity determinations, distillation methods, and special tests for acidity, sulphur, paraffin, asphalt, etc.; a discussion of the gas industry, and laboratory work in gas analysis.

401 ADVANCED INORGANIC AND PHYSICAL CHEMISTRY. Class 3 hours, laboratory 6 hours. Credit 5.

Prerequisite: General chemistry, and two semesters of quantitative analytical work.

A review of the theories considered in the more elementary courses, together with many others relating to thermo-chemistry reaction, velocity and equilibrium, with special reference to their application to the industries.

402 PHYSICAL CHEMISTRY. Class 2 hours, laboratory 6 hours. Credit 4.

Prerequisite: Organic chemistry; quantitative; Course 401 is especially recommended.

Offered to all students prepared to take the work.

A discussion of laws of gases, the kinetic theory, the phase rule, optical activity, and related topics; with laboratory practice in the determination of vapor densities, molecular weights by the freezing and boiling point methods, calculation of the degree of ionization, estimation of optical activity.

405-406 INDUSTRIAL CHEMISTRY. Class 3 hours, laboratory 9 hours. Credit 6.

Prerequisite: Chem. 304-305.

Required of Seniors in chemical engineering, and offered to all having the necessary preparation.

Lectures, recitations and conferences dealing with the applications of chemistry to the problems of manufacture, with laboratory practice in the analyses of both raw materials and factory products.

411-412 SPECIAL METHODS IN QUANTITATIVE ANALYSIS. Class 1 hour, laboratory 6 hours. Credit 3.

Prerequisite: Organic chemistry; quantitative.

Elective for Juniors and Seniors in the School of Science and Literature. Entrance for others to this cours eis only upon personal arrangement with the professor in charge.

A course presenting selected technical methods employed in—

(a) Gas Analysis
(b) Iron and Steel Analysis
(c) Fuel Analysis
(d) Wet and Fire Analysis
(e) Water Analysis.

420 TEACHING OF CHEMISTRY. Class 1 hour. Credit 1.

Required of Seniors in the course in exact science in the School of Science and Literature, and elective for all others who have sufficient knowledge of the subject matter under discussion.

A series of conferences in which the methods and procedure in teaching general chemistry will be discussed in detail. Selections of subject matter for classwork and laboratory exercises, apparatus and equipment for class demonstrations, relation of class and laboratory work, choice of text and reference books, etc.

421-422 MASTER'S THESIS. Conference 1 hour, laboratory 10 to 20 hours. Credit in accordance with the amount of work done.

The work here indicated is of the nature of investigation, and is chiefly experimental, with the necessary reading and conferences. It is intended to familiarize the student with the methods used in independent work, and with na appreciation of the aims and objects of work in chemistry.

423-424 JOURNAL SEMINAR. 1 hour per week. Credit 1.

Required of all Seniors in chemical engineering, and of graduate students. All members of the staff are expected to attend. Reports on recent articles in American and foreign magazines, and discussion of chemical advances.

DEPARTMENT OF CHEMICAL ENGINEERING

HILTON IRA JONES, *Professor*
ROBERT DuBOIS, *Assistant Professor*

This course in chemical engineering has been arranged to meet the needs of an increasing number of students who wish to prepare themselves for engineering work that depends wholly or in part on chemical or metallurgical processes. The purpose of the course is to provide the young engineer with a broad and well-founded knowledge of both chemistry and mechanical engineering so that he may be prepared to take up the work of assisting in the design and erection of machinery used in such manufacturing plants as those indicated. But it is the aim of the work also to develop in him the ability to see the bearing of a proposition from the combined viewpoint of the chemist and the engineer, which is essential if one is to appreciate the fact that commercial success in manufacturing depends on the application of scientific principles.

In addition to a knowledge of the principles on which the design, construction and maintenance of a manufacturing plant rests, there must be control of the raw material used and the products turned out. No efficient control can be had except through chemical analysis, and on this account the study of analytical chemistry is especially emphasized. The courses in chemistry and in mechanical engineering are so arranged that the work of the first two years is fundamental in character and furnishes a suitable foundation for one who would become either a chemist or an engineer; while that of the last two years, though it requires all the essential work for either, allows the student some choice of subjects, depending on the interests he has developed up to that time.

The equipment of both the chemical laboratory and the Department of Mechanical Engineering, described elsewhere in this catalog, is available for this course.

Regular work is supplemented from time to time by the analyses of oil and similar products sent in from different parts of Oklahoma and elsewhere.

For the outline of the courses, see "Courses in the School of Engineering.

For a description of the courses in chemistry, see the Department of Chemistry.

DEPARTMENT OF DRAWING AND ART

————————, *Professor*
DAISY D. McCOOL, *Instructor*
ELLA JACK, *Instructor*

The aim of the course in this department is to give training that is necessary for use in the practicum subjects of the College.

In the Freshman year the drawing is so planned as to correlate with coordinate studies, giving the elementary principles and their application in matters of everyday life.

Completed projects in artwork that meet a certain standard of excellence shall be placed by students at the disposal of the institution for a period of one year.

SUBJECTS

101 DRAWING. Practice 4 hours. Credit 1⅓.

Freehand drawing in accordance with fundamental principles of perspective and laws governing correct drawing; composition and color harmonies. Work includes the representation from observation of object and nature motifs, and involve the use of pencil, crayons and charcoal.

102 DRAWING. Practice 4 hours. Credit 1⅓.

Prerequisite: Draw. 101.

Freehand drawing from object and nature motifs continued, introducing the use of water colors. Freehand lettering is exercised during this semester.

103 DRAWING. Practice 4 hours. Credit 1⅓.

A course of instruction required of students enrolled in Education. Freehand drawing from object and nature motifs, involving the use of pencil, crayon and water color, including lectures and assigned work, dealing with problems of presenting art instruction in secondary and grammar schools.

104 DRAWING. Practice 4 hours. Credit 1⅓.

Prerequisite: Draw. 103.

Continuation of Drawing 103. Applied design to various materials, suitable for public school work. Blackboard drawing, freehand cutting of papers, elementary poster illustration. Lectures and assigned work dealing with the history of art.

105 DRAWING. Practice 4 hours. Credit 1⅓.

A course of instruction required of students enrolled in the School of Home Economics. To teach drawing in accordance with fundamental principles of perspective and laws governing correct drawing, composition and color harmonies, from object and nature motifs. Work includes instruction and practice of freehand lettering. Mediums used, pencil, crayon and charcoal.

106 DRAWING. Practice 4 hours. Credit 1⅓.

Prerequisite: Draw. 105.

Required of students enrolled in the School of Home Economics. To teach theory and practice of design in the expression of form and color ideas, including various kinds of constructive arrangements and decoration, introducing the use of water colors.

309 ART—COMMERCIAL ART. Practice 4 hours. Credit 1⅓.

Prerequisite: Draw. 101-102 or 105-106.

To teach various kinds of lettering applied to posters, and the principles of commercial and pictorial compositions, involving the use of pencil, charcoal and water colors.

310 ART—COMMERCIAL ART. Practice 4 hours. Credit 1⅓.

Prerequisite: Art 309.

To teach color application in the development of pictorial and commercial compositions. Mediums: Charcoal, water colors and pen and ink.

403 ART—ARTCRAFT. Practice 4 hours. Credit 1⅓.

Prerequisite: Art 101 or 103 or 105.

To teach elementary work in cardboard construction, bookmaking, bookbinding, and application of design.

404 ART—ARTCRAFT. Practice 4 hours. Credit 1⅓.

Prerequisite: Art 403.

To teach embodiment of structural design, including projects in textile-weaving, basket-making, leather construction and applied color.

405 ART—POTTERY. Class 4 hours. Credit 1⅓.

Prerequisite: Draw. 101 or 103 or 105.

To teach the study of form and construction with clay as the medium Pottery comprises the making of objects, such as bowls, vases, jars and othe shapes.

406 ART—POTTERY. Class 4 hours. Credit 1⅓.

Prerequisite: Art 405.

Continuation of Art 405, involving the development of original projects in pottery and modeling.

408 ART—ART APPRECIATION. Class 1 hour. Credit 1.

A lecture and reading course relating to knowledge and appreciation of art to life. Course includes study of paintings as a source of pleasure in the home and civic buildings.

409 ART—PORCELAIN DECORATION. Practice 4 hours. Credit 1⅓.

Prerequisite: Draw. 101 or 103 or 105.

Relating to fundamental principles of design and color with technique of china decoration.

410 ART—PROCELAIN PAINTING. Practice 4 hours. Credit 1⅓.

Advanced work in ceramics.

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DEPARTMENT OF ENGLISH

N. W. ROCKEY, *Professor*
B. H. VAN DYKE, *Assistant Professor*
GRACE MOUNTCASTLE, *Assistant*
STELLA PRIEST, *Instructor*

A number of improvements have been made recently which enable the Agricultural and Mechanical College to keep pace with the constantly increasing attention that is being paid to English in other institutions. New courses have been added to meet the special needs of students, and a very wide selection of courses is now made possi-

ble. Constant additions of books for reference and supplementary reading are provided by the library.

The aim of the department is two-fold: (1) To create such a love in the student for the best literature that he shall continue to read and enjoy it after his school days are over; (2) to teach the student to express himself clearly and forcibly in writing and speaking.

SUBJECTS

101, 102 COLLEGE. Class 3 hours. Credit 3.

Prerequisite: Completed preparatory English.

This course consists principally of the study and practice of the principles of composition. A thorough knowledge of the principles of grammar is essential. Frequent themes of various nature are required, and a study of classics is introduced. Emphasis is placed upon oral composition and individual conference and correction. Students are required to attain a high standard of self-expression. All students must have access to an unabridged dictionary, and are urged to possess a good standard dictionary.

201-202 ADVANCED COMPOSITION. Class 2 hours. Credit 2.

Prerequisite: Eng. 101 and 102.

Advanced courses in composition, adapted to the needs of students, in sections to be arranged. Courses take up types of composition, and are supplemented by literature. Expository and argumentative types, first semester; descriptive and narrative the second.

203 NEWS-WRITING. Class 2 hours. Credit 2.

Prerequisite: Eng. 101, 102.

A study of the elements of news-writing and style form the basis of the work. Proper attention is given to writing leads, structure of news stories, reporting and gathering of news, interviewing, reporting speeches, and other forms of elementary journalism.

204 MAGAZINE AND FEATURE WRITING. Class 2 hours. Credit 2.

Prerequisite: Eng. 101, 102, 203.

This course takes up the problem of turning scientific and technical information into practical articles for publication in magazines. Practical work in editing and proofreading.

205-206 CURRENT LITERATURE. Class 2 hours. Credit 2.

Prerequisite: Eng. 101, 102.

A course offered as an aid to more intelligent magazine reading and to stimulate an interest in the best current literature.

Text: Current magazines and books.

207-208 ENGLISH LITERATURE. Class 3 hours. Credit 3.

Prerequisite: Eng. 101, 102.

A general survey. First semester work extends to the early Romantic Movement; second secester work, from Wordsworth to Stevenson. The principal study is of the literature itself, but enough attention is given to the life of the author and the times in which he lived to enable the student to appreciate his work and influence. It is an introduction to literature and literary criticism, and, although it is elective to advanced students, those electing it early in their course will be enabled to pursue the more advanced courses with greater profit and success.

209 TECHNICAL WRITING. Class 2 hours. Credit 2.

Prerequisite: Eng. 101, 102.

This is an advanced course in composition adapted to the interests and needs of engineering students.

301-302 PUBLICITY AND BULLETIN WRITING. Class 2 hours. Credit 2.

Prerequisite: Eng. 203, 204.

An advanced course in writing for actual publication. Publicity work is undertaken in connection with the course. Membership is limited and subject to the approval of the instructor.

303-304 AMERICAN LITERATURE. Class 2 hours. Credit 2.

Prerequisite: Eng. 101, 102.

This course covers a history of American literature in a more intensive manner than is possible in secondary schools. Attention will be given to literary periods and to the writings of the lesser as well as the greater American authors. Some comparison is made with English literature. Poetry occupies the first semester, prose the second.

305-306 ENGLISH LANGUAGE. Class 2 hours. Credit 2.

Prerequisite: Eng. 101, 102.

A college course in the structure of language, and aimed to advance and deepen the student's knowledge of grammar. Some attention is given to the historical development of forms and to word study.

307-308 BIBLE LITERATURE. Class 2 hours. Credit 2.

Prerequisite: Eng. 101, 102.

A literary study of the Bible.

401 CARLYLE AND RUSKIN. Class 3 hours. Credit 3.

The assignment in this work varies from year to year. This year the fol-

Prerequisite: Eng. 101, 102.

lowing will be studied: Carlyle's "Sartor Resartus"; prose writings of other essayists, including Ruskin. Although not a prerequesite, students should have had English 207 and 208.

402 VICTORIAN POETS. Class 3 hours. Credit 3.

Prerequisite: Eng. 101, 102.

This course is designed to give students a comparatively thorough knowledge of one of the master poets of the Nineteenth Century. This does not exclude the consideration of other authors as an aid to the study of the author chosen. This year Tennyson has been selected for intensive study. Although not a prerequisite, students should have had English 207, 208.

403 ROMANTIC MOVEMENT IN ENGLISH POETRY. Class 3 hours. Credit 3.

Prerequisite: Eng. 101, 102.

About one-fourth of the time is devoted to Wordsworth, the remainder to Coleridge, Byron, Shelley and Keats. This course is supplemented by lectures and collateral readings, tracing the rise and develoment of the Romantic Movement. The work is based upon the complete work of each of the authors studied. By clubbing together the students have purchased the five volumes at a reasonable rate. Although not a prercquisite, students should have had English 207, 208.

404 THE DRAMA. Class 3 hours. Credit 3.

Prerequisite: Eng. 101, 102.

A study is made of the rise and development of the English drama, of the Elizabethan stage, and the conditions under which the great dramatist wrote. Specimens of early English plays and Shakespeare's plays are reported upon, and some attention is given to the later drama.

405-406 THE NOVEL. Class 2 hours. Credit 2.

Prerequisite: Eng. 101, 102.

In this course the development of the English novel into definiteness of form and purpose receives due emphasis, and the writers studied are treated as representatives of the life, the thought and literary movements of the times in which they lived. The earlier novels occupy the first semester, the later the second.

407-408 MASTERPIECES. Class 2 hours. Credit 2.

Prerequisite: Eng. 101, 102.

An intensive study of masterpieces to be selected by the instructor. This course serves those who wish to review and supplement their reading for high school teaching, as well as those who wish to increase their knowledge of great masterpieces.

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DEPARTMENT OF FOREIGN LANGUAGES

MARY ELEANOR LOCKWOOD, *Instructor in Charge*
MARIE ESTER SOTO R., *Instructr*

The College offers a four-year course in modern and ancient languages.

The Secondary School of Oklahoma A. and M. College requires one year of some foreign language of all students. Students who are preparing for the School of Engineering must take two years of a foreign language.

The student is allowed to elect that course for which he is prepared.

As to which courses are required and which elective, see the courses of study outlined for each school.

SUBJECTS

SPANISH

101 ELEMENTARY COURSE. Class 3 hours. Credit 3.

Mastery of the forms of grammar; careful treatment of the pronunciation; emphasis on the most important irregular verbs.

Text: "A Brief Spanish Grammar", Ingraham-Edgren; "Elementary Spanish-American Reader", Berge-Soler and Hathaway.

102 ELEMENTARY COURSE. Class 3 hours. Credit 3.

Prerequisite: Course 101.

Emphasis on irregular verbs and most common idioms. Reading of about two hundred pages of modern prose.

Text: Same as for 101.

201 SECOND YEAR. Class 3 hours. Credit 3.

Prerequisite: Spanish 102.

Advanced prose composition; reading of standard authors.

Text: "Composition"; Waxman's "A Trip to South America"; Isaac's "Maria", by Keniston.

202 SECOND YEAR. Class 3 hours. Credit 3.
Prerequisite: Spanish 201.
Continuation of Course 201.
Text: Some compositions as for Spanish 201. Spanish magazines. Alarcon's "El Capitan Veneno".

301 THIRD YEAR. Class 3 hours. Credit 3.
Prerequisite: Spanish 202.
Letter-writing and conversation.
Texts vary.

302 THIRD YEAR. Class 3 hours. Credit 3.
Prerequisite: Spanish 301.
A continuation of Course 301.
Texts vary.

401 ADVANCED COURSE. Class 3 hours. Credit 3.
Prerequisite: Spanish 302.
Reading of representative authors. Conversation.

402 ADVANCED COURSE. Class 3 hours. Credit 3.
Prerequisite: Spanish 401.
Continuation of Course 401.

FRENCH

101 ELEMENTARY COURSE. Class 3 hours. Credit 3.
Essentials of French grammar; the more common irregular verbs. Careful training in pronunciation.
Text: Fraser and Squair's Short Course; reading of Bruce's "Lectures Faciles".

102 ELEMENTARY COURSE. Class 3 hours. Credit 3.
Prerequisite: French 101.
Continuation of Course 101. Reading of 150 to 200 pages of prose. Emphasis on irregular verbs, idioms, and translation of easy French at sight.
Text: Fraser and Squair's Shorter Course; Allen and Schoell's "French Life".

201 SECOND-YEAR FRENCH. Class 3 hours. Credit 3.
Prerequisite: Frnech 102.
Prose composition, reading of standard authors.
Text: Levi's "French Prose Composition"; Merimee's "Colomba"; Daudet's "La Belle Nivernaise", etc.

202 SECOND-YEAR FRENCH. Class 3 hours. Credit 3.
Prerequisite: French 201.
Continuation of Course 201.
Text: Levi's "French Prose Composition". Collateral readings. Nicolas' "Carnet de Campagne"; Sand's "La Mare au Diable", etc.

203 SCIENTIFIC FRENCH. Class 2 hours. Credit 2.
Prerequisite: French 102.
Text: Bowen's "Elementary Scientific Reader".

204 SCIENTIFIC FRENCH. Class 2 hours. Credit 2.
Continuation of Course 203.
Text: French scientific magazines.

301 MOLIERE. Class 3 hours. Credit 3.

Prerequisite: French 202.
A careful study of the works of Moliere; collateral readings.
Text: "Le Bourgeoise Gentilhomme", "Les Femmes Savantes", etc.

302 RACINE AND CORNEILLE. Class 3 hours. Credit 3.

Prerequisite: French 301.
A study of the tragedies of Racine and Corneille.
Text: "Corneille's Le Cid"; "Horace", etc.

401 FRENCH DRAMA OF THE NINETEENTH CENTURY. Class 3 hours. Credit 3.

Prerequisite: French 302.
A study of the works of representative authors, such as Dumas, Augier, Hervien.
Text: "La Question d' Argent", etc.

402 PHONETICS AND COMPOSITION. Class 3 hours. Credit 3.

Prerequisite: French 301.
Text: Geddes' "French Pronunciation"; Armstrong's "Syntax of the French Verb".

LATIN

The Department of Foreign Languages meets the required Latin demands of law schools, medical schools, and the needs of prospective teachers of Latin in high schools. Upon petition and evidence of proper preparation, any desired Latin course will be given.

101 CAESAR. Class 3 hours. Credit 3.

Prerequisite: One year of Latin.
Three books of the Gallic War are read. Methods of translation are carefully taught until the student reaches the point where diligence alone will give mastery. Constant drills in forms, syntax and pronunciation.

102 CAESAR. Class 3 hours. Credit 3.

Prerequisite: Latin 101.
Two more books of the Gallic War are read. Drill in sight-reading. One hour a week is devoted to prose composition.
Text: "Composition", Allen and Phillips.

201 CICERO'S LETTERS AND ORATIONS. Class 3 hours. Credit 3.

Prerequisite: Latin 102.
A reading course with special attention to the life and personality of Cicero.

202 CICERO'S ESSAYS. Class 3 hours. Credit 3.

Prerequisite: Latin 201.
A study of the life, personality and philosophy of Cicero. Study of Cicero's style and prose compositions.
Text: Cicero's "De Senectute"; "De Amicitia".

303 VIRGIL'S AENEID. Class 3 hours. Credit 3.

Three books will be read. This will include a study of Latin poetry, especially the scansion of dactylic hexameter.

304 HORACE. Class 3 hours. Credit 3.

A continuation of Latin poetry. "The Odes from Horace" will be used as a basis.

403 TACITUS' GERMANIA AND AGRICOLA. Class 2 hours, composition 1 hour. Credit 3.

404 LIVY (Books XXI and XXII). Class 2 hours, composition 1 hour. Credit 3.

DEPARTMENT OF HISTORY

C. L. KEZER, *Professor in Charge*

The study of history has two distinct but not incompatible aims. One of these is personal culture, the other is practical vocational value. Each of these standards is sought in both method and matter in different proportions to suit the various courses of the Agricultural and Mechanical College. The number of courses offered is limited by the technological character of the curricula. The newer conceptions of history prevail which treat the subject more for thought than for memory facts, minimize the details of wars, and stress ethical, political and industrial features. Special adaptations are made to reinforce the College work in agriculture and home economics. The College library contains many valuable sets of reference works, which are being added to from time to time.

The department has charge of history in the Secondary School. For courses in Hist. 21, 22, 31, 32 and 41, see Secondary School.

SUBJECTS

205-206 HISTORY OF ENGLAND. Class 3 hours. Credit 3.

Required general literature course in School of Science and Literature; history and literature course in School of Education.

205 to the Stuarts. Rise of English national form. Anglo-Saxon institutions, advancement in democracy as roots of modern institutions.

206 British colonial, naval and commercial growth. Recent Britsh social legislation. Church. Background of English literature. The War of Nations.

306 INDUSTRIAL HISTORY OF THE UNITED STATES. Class 3 hours. Credit 3.

Required: Junior home economics, general science, exact science. Alternate with Edu. 412.

Elective: Schools of Education, Commerce and Marketing, et al.

Economic side of national growth emphasized rather than political. History of different industries, periods and movements, leading to survey of conditions of today. Adaptations to home economics.

307-308 HISTORY OF THE UNITED STATES. Class 3 hours each. Credit 3.

Prerequisite: Am. Hist. 31 and 32 (Government) in Secondary School, or equivalent.

Required in general literature course of School of Science and Literature; history and literature course in School of Education.

307 To the presidency of Andrew Jackson. Colonial period as preparatory to nationality. Steps toward union, the dominant theme in the Revolution; criti-

cal period, and adoption and operation of the Constitution. Social, industrial and educational features given due but secondary consideration.

308 Continuation of 307 to date. Political history basic. Financial and social phases not slighted. Enlargement of governmental activities, state and national, emphasized as characteristic of recent years. Aims to give insight into present-day problems. Current history utilized to give reality to past and to keep pace with the present.

401-402 MODERN EUROPE. Class 3 hours each. Credit 3.

Prerequisite: Anc. Hist. 21 and Mod. Hist. 22.

Should not be taken before 205, 206, 307, 308. Department may grant exception in part.

Required: General literature, School of Science and Literature; history and literature course, School of Education.

401 from 1500 to 1815. Sketch some earlier large events. The rise of the nations, the papacy, feudalism, rennaissance and reformation, French Revolution.

402 Continuation of 401 from 1815 to present. Political and social development. Traces complex conditions leading to War of Nations. Deals with large questions of nationalism, democracy and internationalism.

405 GOVERNMENT AND POLITICAL METHODS. Class 3 hours. Credit 3.

The object is to teach the actual methods of self-government; to make an impartial study of the methods by which political parties organize and conduct their campaigns, along with the improvements that might be made in party methods and in actual government.

406 POLITICAL THEORY. Class 3 hours. Credit 3.

A survey of the forms through which governments have evolved, of the principles of government, and of the actual practices of our American State and National Governments.

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DEPARTMENT OF MATHEMATICS

CARL GUNDERSON, *Professor*
R. E HARTSOCK, *Associate Professor*
A. C. MADDOX, *Assistant Professor*

Work in college mathematics is required of all students in the School of Enngineering, and in the divisions of general and exact science of the School of Science and Literature.

Courses 105, 108, 207, 208 are required of engineers, 205 of civil engineers, 105, 108 and 204 in general science, 105, 108, 204, 207, 208, 301 and 302 in exact science. The other courses are elective or optional.

SUBJECTS

105 COLLEGE ALGEBRA. Class 4 hours. Credit 4.

Prerequisite: One and one-half years of algebra and one year of plane geometry.

Variables and functions; binomial theorem; progressions; complex numbers; logarithms; limits; permutations and combinations.

Text: Reitz and Crathorne.

108 PLANE TRIGONOMETRY. Class 3 hours. Credit 3.

Prerequisite: Plane Geom. and Math. 105.

The development and use of trigonometric functions; relations between the functions; logarithms; solutions of triangles; application to practical problems throughout the course.

Text: Ashton and Marsh.

204 ASTRONOMY. Class 2 hours. Credit 2.

Prerequisite: High School Alg. and Geom.

The celestial sphere; reference lines and astronomical measurements; the solar system; laws of motion; evolution; stars; comets; nebulae; structure of the universe.

205 SPHERICAL TRIGONOMETRY. Class 1 hour. Credit 1.

Prerequisite: Solid Geom. and Math. 108.

Right and quadrantial triangles; oblique triangles.

Text: Ashton and Marsh.

207 ANALYTICAL GEOMETRY AND CALCULUS. Class 5 hours. Credit 5.

Prerequisite: Math. 108 and Solid Geom.

Cartesian and polar coordinates; equations and properties of stright lines and curves; introduction to calculus; limits; infinitesimals; rates; maxima and minima; partial differentiation.

Text: "Brief Course in Analytic Geometry", Tanner and Allen; "Calculus", March and Wolff.

208 CALCULUS. Class 5 hours. Credit 5.

Prerequisite: Math. 207.

Change in variable; integration; application of integration; multiple integrals; curvature; properties of curves; infinite series; Taylor's theorem, hyperbolic functions, nideterminate forms.

Text: "Calculus", March and Wolff.

301 DIFFERENTIAL EQUATIONS. Class 3 hours. Credit 3.

Prerequisite: Math. 208.

Solution of differential equations involving two variables.

Text: Murray.

302 DIFFERENTIAL EQUATIONS. Class 3 hours. Credit 3.

Prerequisite: Math. 301.

Continuation of Math. 301; ordinary differential equations with more than two variables; partial differential equations.

Text: Murray.

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DEPARTMENT OF PHYSICS

J. GARRETT KEMP, *Professor*
E. W. SCHUHMANN, *Assistant Professor*
LEONA SIECLINGER, *Assistant*

Physics is the basic science which includes the fundamental laws and principles involved in all physical changes. The courses which follow give both a theoretical and practical treatment of the subject. Instruction is based on the material contained in carefully selected textbooks. This is supplemented by lectures illustrated by demonstrations and by lantern slides. The purpose is to give a training in

exact reasoning, and a knowledge of principles that will aid in the solution of both scientific problems and those encountered in everyday life.

The laboratory work gives the student an opportunity to test the principal laws of the science. Special attention has been given to equippnng the laboratory with modern apparatus which will give consistent experimental results. This work is carefully coordinated with the work of the classroom, and should enable the student to acquire skill in the manipulation and care of delicate apparatus.

The lecture-room is provided with terraced seats which permit the students to see the demonstrations performed on the lecture table. It is equipped with a combination lantern slide and opaque projectoscope which is used in illustrated lectures. The laboratory is well arranged for work, and the equipment provided is of such a nature that it meets the requirements of the different courses.

SUBJECTS

103 PHYSICS—MECHANICS, HEAT AND SOUND. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Required of all students in home economics of the Freshman class.
Text: Kimball's "College Physics".

105 GENERAL PHYSICS—MECHANICS, HEAT AND SOUND. Class 3 hours, laboratory 2 hours. Credit 3⅔. (Non-mathematical.)

This course consists of two demonstration lectures in which lantern slides and projections are used, one recitation, and one laboratory exercise per week. This course and the following, Physics 106, is suitable for students in the Schools of Agriculture, Commerce and Marketing, Education, and those who wish to study the subject for its practical training in the scientific method (the basis of all efficiency developments), and for aesthetic purposes.
Text: Kimball's "College Physics", revised edition.

106 GENERAL PHYSICS—MAGNETISM, ELECTRICITY AND LIGHT. Class 3 hours, laboratory 2 hours. Credit 3⅔.

Prerequisite: Physics 105, or the equivalent.
This course is the continuation of Physics 105.
Text: Kimball's "College Physics", revised edition.

201 ENGINEERING PHYSICS—MECHANICS, HEAT AND SOUND. Class 4 hours, laboratory 3 hours. Credit 5.

Prerequisite: College Alg. and Trig.
Required of all students in the School of Engineering of the Sophomore class.
Text: "College Physics", Reed and Guthe.
Text: "College Physics", Reed and Guthe.

202 ENGINEERING PHYSICS—MAGNETISM, ELECTRICITY AND LIGHT. Class 4 hours, laboratory 3 hours. Credit 5.

Prerequisite: Physics 201, or the equivalent.
Required of all students in the School of Engineering of the Sophomore class.
This course is the continuation of Engineering Physics 201.

301 ELECTRICAL AND MAGNETIC MEASUREMENTS. Class 2 hours, laobratory 3 hours. Credit 3.

Prerequisite: Physics 201 and 202, or Physics 203 and 204, or the equivalent.

Required of all students of the Junior class in electrical engineering.
Text: "Magnetism and Electricity for Advanced Students", Hadley.
Laboratory Manual: "Electrical Measurements", C. M. Smith.

302 ELECTRICAL AND MAGNETIC MEASUREMENTS. Class 1 hour, laboratory 3 hours. Credit 2.

Prerequisite: Physics 305.

This course is the continuation of 305, and it is required of all students of the Junior class in electrical engineernig.
Text: "Electrical Measurements", C. M. Smith.

303 ADVANCED PHYSICS—MECHANICS AND SOUND. Class 3 hours, laboratory 3 hours. Credit 4.

Prerequisite: Physics 203, or the equivalent.
Required of Junior class students in exact science.
Text: "General Physics for Advanced Students", Edser.

304 ADVANCED PHYSICS—HEAT AND THERMODYNAMICS. Class 3 hours, laboratory 3 hours. Credit 4.

Prerequisite: Physics 203, or the equivalent.
Required of Junior class students in exact science.
Text: "Heat for Advanced Students", Edser.

320 PHYSICS. Popular lectures 2 hours.

This course is for Sophomores, Juniors and Seniors of regular college standing. These lectures will be illustrated by lantern slides, projections and experiments. Assignments for general reading and a neat notebook on the lectures will be required.

403 ADVANCED PHYSICS—MAGNETISM, ELECTRICITY AND RADIOACTIVITY. Class 3 hours, laboratory 3 hours. Credit 4.

Prerequisite: Physics 201 and 202, or Physics 203 and 204, or the equivalent.

Required of Seniors in exact science.
Text: "Magnetism and Electricity for Advanced Students", Hadley.
Laboratory Manual: "Electrical Measurements", C. M. Smith.

404 ADVANCED PHYSICS—LIGHT AND RADIATION. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: Physics 201-202, or Physics 203-204, or the equivalent.
Required of Seniors in exact science.
Text: "Light for Advanced Students", Edser.

420 TEACHING OF PHYSICS. Class 1 hour. Credit 1.

Prerequisite: Physics 105 or 106, or the equivalent.

Required of Seniors in the course in exact science in the School of Science and Literature, and elective to all others who have the prerequisite knowledge of the subject matter. The pedagogy of physics, in which the methods and procedure in teaching elementary physics will be discussed. Selection of subject matter for classwork and laobratory exercises, apparatus and equipment, choice of text and reference books will be discussed in detail.

430 METEOROLOGY. Class 2 hours. Credit 2.

Prerequisite: Physics 21 and 32, or the equivalent.

All students of college grade are eligible. It will consist of two lectures per week, illustrated by experiments and lantern slides. This course is a study of the physics of atmospheric changes and conditions which affect climate, seasons, storms, cyclones, weather maps and predictions, etc.

Text: "Elementary Meteorology", Frank Waldo.

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DEPARTMENT OF PUBLIC SPEAKING

J. R. PELSMA, *Professor*

This department aims to make each student an intelligent reader and an effective speaker. It aids him to systematize, to correlate, and to express his knowledge gained through study and experience; it encourages concentration, stimulates logical thinking, and gives opportunity for self-expression. It teaches control of thought and action, which is the acme of all education.

Public speaking students are required to attend and to report upon certain public speaking contests and other public addresses given during the semester, and are urged to join a literary socieyt and to participate in some of the contests provided by the Oratorical Association.

The department has charge of the Amateur Dramatic Club. Its membership is open to students with histrionic ability. The club stages two plays each year.

Intercollegiate debaters and orators are privileged to become members of the Pi Kappa Delta honorary forensic fraternity.

Members of the Dramatic Club may become eligible to the Theta Alpha Phi Fraternity, a national dramatic society organized in 1919 by the A. and M. Dramatic Club.

SUBJECTS

101 ESSENTIALS OF PUBLIC SPEAKING. (Eight sections each semester. Sections limited to fifteen students.) Class 2 hours. Credit 2.

This is an elementary course and a prerequisite to all other courses in public speaking. The fundamental principles of expression are emphasized through drills in correct breathing, tone production, voice modulations, and in the composition and the delivery of original speeches. A basis of self-criticism is effected enabling the student to continue improving his speech after completing the course. The work will be adapted to the present and future needs of each student.

201 ARGUMENTATION AND DEBATE. Class 2 hours. Credit 2.

A study of the principles of argumentation—analysis, evidence, proof, refutation and fallacies. Brief-drawing. Practical debating. Platform technique. Critical study of masterpieces of forensic oratory. Parliamentary drill.

202 ORATORY. Class 2 hours. Credit 2.

A study of the oration, the orator, and the audience. Analytical study of classic orations. Practice in the composition and the delivery of orations, formal speeches and occasional addresses. The psychology of the crowd in its relation to the public speaker. A brief history of oratory.

203 DRAMATIC ART. Class 2 hours. Credit 2.

Stage technique. Dramatic interpretation. Platform readings. Staging several one-act plays. Pageantry. Pantomime. Costuming. Making up. Scenery. Choosing, directing and rehearsing plays.

Essential for students interested in amateur theatricals, and for teachers who coach plays.

301 EXTEMPORE SPEAKING. Class 2 hours. Credit 2.

This course aims to cultivate in the student a fluent, forceful and effective presentation of his own thoughts to others. Daily practice will be given on assigned subjects previously mastered and outlined, though the diction of the speech is not memorized. Every student should learn to think while on his feet. This course affords an opportunity to become an effective platform speaker through a careful preparation and delivery of various forms of public address adapted to definite audineces.

302 LITERARY INTERPRETATION. Class 2 hours. Credit 2.

An advanced course in reading. Classical literature selections will be studied with a view to their vocal interpretation. Studies in the dramatic monologue, humorous, pathetic and dramatic productions will be read. Physical expression. Dialect readings.

303 ORAL ENGLISH. Class 2 hours. Credit 2.

A course designed for teachers of English in secondary schools. Standard literary classics will be interpreted orally. Emphasis will be placed on college entrance requirements in English. Methods of teaching oral English in secondary schools. Vocal technique. Voice defects—diagnosis and treatment. Story-telling. Criteria for judging contests.

304 SEMINAR IN DEBATING AND ORATORY. Class 2 hours. Credit 2.

An advanced course in debating and oratory. Designed for intercollegiate debaters, orators and their alternates.

THE SCHOOL OF EDUCATION

HERBERT PATTERSON, *Dean*

PURPOSE

The purpose of the School of Education is two-fold: First, to prepare superintendents, principals, supervisors and teachers for the public schools of Oklahoma; second, to enlarge the appreciation of the importance of the American public school system in the advancement of civilization. In furtherance of the first of these purposes, prescribed courses are offered leading to the attainment of the several kinds of teachers' certificates given in the State of Oklahoma; while in harmony with the second purpose, students enrolled in other schools of the College are allowed to elect courses in the School of Education.

HISTORY

Courses in Education were first given in 1909. The importance of teacher-training courses steadily gained emphasis, and in 1913 the School of Education was organized as a distinct school, coordinate in rank with other schools of the College.

COURSES

Numerous courses are given leading to the degrees of Master of Science and Bachelor of Science, and to the State Life High School Certificate, Special College Certificate, and Grammar Grade or Two-Year Certificate.

THE EDUCATION SOCIETY

The Education Society of the Oklahoma Agricultural and Mechanical College is an organization composed of students in the School of Education. Frequent meetings are held, and practical problems relating to teaching as a vocation are discussed. The society has been instrumental in developing friendship among its members, and in emphasizing the importance of technical teacher-training.

EMPLOYMENT

Graduates of the School of Education experience no difficulty in securing employment at good salaries as teachers in some of the best schools in Oklahoma. For several years the demand has been far in excess of the supply. The School of Education helps its graduates in locating work as teachers.

DEGREES AND TEACHERS' CERTIFICATES

M. S. DEGREE IN EDUCATION

The degree of Master of Science in Education is granted to graduates whose major work is in the School of Education. The general requirements for this degree are stated in the section of this catalog under the heading "Requirements for the Master's Degree".

In addition to fulfilling these general requirements, candidates for the degree of Master of Science in Education must present evidence of at least nine months' successful teaching.

B. S. DEGREE AND STATE LIFE HIGH SCHOOL CERTIFICATE

Students who complete the four-year course in the School of Education receive a Bachelor of Science degree and a State Life High School Certificate in Oklahoma.

"Any graduate of any college organized under the laws of the State of Oklahoma, and operated in the State of Oklahoma, requiring a four years' college course for graduation, and which has entrance requirements equivalent to a four years' high school course, and maintaining a course in education equivalent to the course in education in the University of Oklahoma, said course to be approved by the State Board of Education, shall, upon application to the State Superintendent of Public Instruction, and making proof of graduation from any such college, and the completion of said course of study, be granted a life high school certificate of the same rank as is granted to the graduates of the State University for the same class of work."—School Laws of Oklahoma, 1919; Article I, Section 10.

SPECIAL COLLEGE CERTIFICATE

A special certificate will be granted by the State Board of Education to students completing at least two years' work of college grade including courses in psychology and education.

"Students of the University of Oklahoma, the Oklahoma A. and M. College, or any approved college of the State of Oklahoma, who have earned credit for at least two years' work with courses in psychology and education, upon the recommendation of the president, may be granted a certificate valid for two years, which, when registered with the county superintendent of any county, shall be of equal standing with the first-grade county certificate, and shall be valid in independent districts when registered with the secretary of the board of education of such independent districts."—Rules and Regulations of the State Board of Education, July 1, 1919; page 18.

GRAMMAR-GRADE, OR TWO-YEAR CERTIFICATE

Grammar-grade or two-year certificates will be granted by the State Board of Education to graduates of accredited high schools who have completed at least one year's work of college grade, including courses in psychology and education.

"Students who have graduated from fully accredited high schools, and who have been admitted with at least 15 units to the University of Oklahoma, the Oklahoma A. and M. College, or any approved college organized under the laws of the State of Oklahoma, or one of the Oklahoma State Normal Schoo's, and who have done full work therein for one year or for three summer sessions, including courses in psychology and education, may be granted a State grammer-grade certificate valid for two years; provided, that notice of intention to apply for such a certificate is given at the beginning of the year's work."—Rules and Regulations of the State Board of Education, July 1, 1919; page 21.

CREDITS TOWARD TEACHER'S CERTIFICATE

When a subject is completed at the College, the certificate-granting authorities of the State accept that credit instead of an examination.

"Any credit made in such college, which would entitle the holder thereof to graduation in that subject, may be substituted within three years from the time the credit is granted, in lieu of an examination in that subject on any teacher's certificate."—School Laws of Oklahoma, 1919; Article I, Section 11.

All subjects required for teachers' certificates are offered some time during the College year.

SUMMER SCHOOL COURSES

Courses in Education which will apply toward all grades of teachers' certificates are offered during the Summer School. Special attention is given to meeting the needs of rural teachers. An annual Summer School bulletin contains full announcement of the courses offered.

COURSE FOR NORMAL SCHOOL GRADUATES

Graduates from the State Normal Schools of Oklahoma and other normal schools of equal standing are admitted to junior standing in the School of Education and may complete the requirements for the B. S. degree and the State Life High School certificate in two years. The outline for this course is given on page 135.

COURSES IN VOCATIONAL EDUCATION

In accordance with the provisions of the Smith-Hughes Act, courses are offered for the preparation of high school teachers of agriculture, of trades and industries, and of home economics. These courses are under the general supervision of the Oklahoma State Board of Vocational Education, whose executive staff has offices in the State capitol, Oklahoma City.

For teachers of agriculture in schools participating in the Smith-Hughes fund, the course must contain at least 40 semester hours of credit in agriculture and 15 semester hours of credit in education.

"Teachers of agriculture in schools participating in the Smith-Hughes fund shall, before employment, be approved by the State Board of Vocational Education, and shall be qualified as follows:

a Age, not less than 21 years.

b Education. The completion of a four-year course, given in or by an accredited agricultural college, or other accredited institution of college rank, requiring 15 high school units for admission and 120 semester-hours for graduation. The college course shall be such as to give at least 40 semester hours of credit in strictly technical or practical work in agriculture; not less than 12 hours of credit shall be in subjects allied to agriculture, and 15 hours in professional work in education, which shall be prescribed by the State Board of Vocational Education, and shall include 3 semester-hours in general psychology and 75 hours in supervised practice-teaching.

"c Experience. Not less than two full years of actual farm experience in labor or management, at least one of which shall have been continuous so as to give contact with farm conditions during all seasons.

"d Personality. In order to be approved, the applicant must have such personal qualifications as would fit him for leadership in the community, and for directing students in their school work and home projects.

"e Certification. No person shall be employed as a teacher of Vocational Agriculture in a school receiving State and Federal reimbursement until he shall have a teacher's certificate or diploma entitling him to teach in the State of Oklahoma, and shall have been approved by the State Board of Vocational Education for the teaching of Vocational Agriculture; and no Federal or State funds shall be used to pay any portion of the salary of any teacher of agriculture unless such teacher has been approved by the State Board of Vocational Education for the teaching of Vocational Agriculture."—Plans of the Oklahoma State Board of Vocational Education; Bulletin No. 3, 1919-20, pages 10-11.

For teachers of home economics in schools participating in the Smith-Hughes fund, the course must contain at least 40 semester-hours of credit in home economics and 13 semester-hours of credit in education.

"Qualifications of Teachers of Home Economics.

(1) Practical Experience.—The teacher must have had at least two years' actual experience with the practical problems of home economics, or her college course must have included a course in supervised home management under home conditions.

(2) Training in Home Economics.

The teacher of Vocational Home Economics must have graduated from a four-year home economics course in an approved college, or possess the qualifications equivalent to graduation.

(3) Professional Training.

The teacher of an all-day school must have spent, during her college course, at least 10 percent of her college hours in professional training, which should include special methods in home economics and practice-teaching."—Plans of the Oklahoma State Board of Vocational Education, Bulletin No. 3, 1919-20, pages 22-23.

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COURSES IN THE SCHOOL OF EDUCATION

The following outline of study represents the required and elective work in the School of Education. The courses are numbered, beginning with one hundred in the Freshman year; odd numbers, as 101, represent the first semester's work in the subject, and even numbers, as 102, the second semester's work. Subjects of the Sophomore, Junior and Senior years are numbered accordingly, two hundred for Sophomore, three hundred for Junior, and four hundred for Senior work. One hour of laboratory period is equivalent to one-third of a classroom period in estimating the number of hours per week to be taken.

The total requirements for graduation are 128 credits, exclusive of any credits given in military science and physical education.

Sophomore electives are open to Juniors and Seniors where the necessary prerequisite work is taken. Both Junior and Senior electives are open to either Juniors or Seniors.

In the outline below, figures without parenthesis indicate hours of classwork, in parenthesis hours of laboratory work.

Any student may elect the work of the Reserve Officers Training Corps, which counts 2 hours credit in each semester of the Junior and Senior years. This credit will be accepted as a substitute for elective work, or for required work by special arrangement.

LEADING TO B. S. DEGREE AND STATE LIFE HIGH SCHOOL CERTIFICATE

FRESHMAN YEAR

FIRST SEMESTER

	Hours		Cr.
Eng. 101, College	3		3
Chem. 101, Inorganic	3	(4)	4⅓
Zool. 201, General	3	(4)	4⅓
Edu. 103, School Hygiene and Management	3		3
Draw. 103, Public School Drawing		(4)	1⅓
Physical Education		(3)	
Military Science		(3)	

SECOND SEMESTER

	Hours		Cr.
Eng. 102, College	3		3
Chem. 102, Inorganic	2	(4)	3⅓
Econ. 201, Principles	3		3
Edu. 106, Methods of Teaching Common Branches	3		3
Edu. 108, Public School Music	2		2
Draw. 104, Public School Drawing		(4)	1⅓
Physical Education		(3)	
Military Science		(3)	

SOPHOMORE YEAR

FIRST SEMESTER

	Hours		Cr.
Edu. 203, General Psychology	3		3
Eng. 207, English Literature	3		3
Hist. 307, United States	3		3
Pub. Spk. 101, Essentials	2		2
Physical Education (Women)		(3)	
Military Science		(3)	
Elective (major subjects)	5		5

SECOND SEMESTER

	Hours		Cr.
Edu. 204, Educational Psychology	3		3
Eng. 208, English Literature	3		3
Hist. 308, United States	3		3
Physical Education (Women)		(3)	
Military Science		(3)	
Elective (major subjects)	7		7

JUNIOR YEAR

FIRST SEMESTER

	Hours		Cr.
Edu. 305, History of Education	3		3
Eng. 201, Advanced Composition	2		2
Pub. Spk. 201, Argumentation and Debate or			
Pub. Spk. 203, Dramatic Art	2		2
Physics 105, General (men)	3	(2)	3⅔
H. E. 105, Textiles and Clothing (women)	2	(4)	3⅓
Elective (major subjects)	6		6

SECOND SEMESTER

	Hours		Cr.
Edu. 316, Methods of Teaching in High School	3		3
Edu. 310, Psychology of Adolescense	2		2
Eng. 202, Advanced Composition	2		2
Physics 106, General (men)	3	(2)	3⅔
H. E. 106, Textiles and Clothing (women)	2	(4)	3⅓
Elective (major subjects)	6		6

SENIOR YEAR

FIRST SEMESTER

	Hours		Cr.
Edu. 425, Observation and Practice Teaching	1	(3)	2
Edu. 423, Educational Measurements	1	(3)	2
Hist. 401, Modern Europe	3		3
Edu. 421, General Sociology	2		2
Elective (major subjects)	3		3
Elective	4		4

SECOND SEMESTER

	Hours		Cr.
Edu. 426, Observation and Practice Teaching	1	(3)	2
Edu. 408 School Administration	2		2
Hist. 402, Modern Europe	3		3
Elective (major subjects)	3		3
Elective	6		6

Two Major Subjects Required.—In addition to the prescribed courses, students are required to elect at least 15 semester-credits of work in each of two of the following departments: Agriculture, Botany and Zoology, Chemistry, Commerce and Marketing, English and Public Speaking, French, History and Economics, Home Economics, Latin, Manual Training, Mathematics, Physics, and Spanish. These courses must be approved by the heads of the departments involved, and by the Dean of the School of Education. Students should select their major subjects not later than the beginning of the Sophomore year.

Men who have not studied agriculture or manual training in high schools, are requried to elect a year's work in one of these subjects.

COURSE FOR GRADUATES OF OKLAHOMA STATE NORMAL SCHOOLS

LEADING TO B. S. DEGREE AND STATE LIFE HIGH SCHOOL CERTIFICATE

JUNIOR YEAR

FIRST SEMESTER

	Hours		Cr.
Pub. Spk. 201, Argumentation and Debate or			
Pub. Spk. 203, Dramatic Art	2		2
Eng. 201, Advanced Composition	2		2
Zool. 201, General	3	(4)	4⅓
Physics 105, General (men)	3	(2)	3⅔
H. E. 105, Textiles and Clothing (women) or			
H. E. 203, Food Study (women)	2	(4)	3⅓
Elective (major subjects)	5		5

SECOND SEMESTER

	Hours		Cr.
Edu. 316, Methods of Teaching in High School	3		3
Edu. 310, Psychology of Adolescence	2		2
Eng. 202, Advanced Composition	2		2
Physics 106, General (men)	3	(2)	3⅔
H. E. 106, Textiles and Clothing (women) or			
H. E. 204, Food Study (women)	2	(4)	3⅓
Elective (major subjects)	5		5

SENIOR YEAR

FIRST SEMESTER

	Hours		Cr.
Edu. 425, Observation and Practice-Teaching	1	(3)	2
Edu. 423, Educational Measurements	1	(3)	2
Edu. 421, General Sociology	2		2
Elective (major subjects)	10		10

SECOND SEMESTER

	Hours		Cr.
Edu. 426, Observation and Practice-Teaching	1	(3)	2
Edu. 408, School Administration	2		2
Elective (major subjects)	10		10
Elective	2		2

Two Major Subjects Required.—In addition to the prescribed courses, students are required to elect at least 15 semester-credits of work in each of two of the following departments: Agriculture, Botany and Zoology, Chemistry, Commerce and Marketing, English and Public Speaking, French, History and Economics, Home Economics, Latin, Manual Training, Mathematics, Physics, and Spanish. These courses must be approved by the heads of the departments involved and by the Dean of the School of Education. Students must select their major subjects at the beginning of the Junior year.

Men who have not studied agriculture or manual training in high school are required to elect a year's work in one of these subjects.

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COURSE FOR TEACHERS OF AGRICULTURE LEADING TO B. S. DEGREE AND STATE LIFE HIGH SCHOOL CERTIFICATE

Men in the School of Education desiring to qualify as teachers of agriculture in high schools are required to complete the regular course for B. S. degree and State Life High School Certificate, as outlined on page 134.

Agriculture Required as Major Subject.—Instead of electing two major subjects, these men are required to complete at least 40 semester-credits in the School of Agriculture.

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COURSE FOR SPECIAL COLLEGE CERTIFICATE

The courses in psychology and education required for this certificate are Edu. 103, Edu. 106, and Edu. 104 or Edu. 203. Two years of regular college work with an aggregate of at least 64 semester-credits, including the education courses, is required.

COURSE FOR GRAMMAR-GRADE OR TWO-YEAR CERTIFICATE

The courses in psychology and education required for this certificate are Edu. 103, Edu. 106 and Edu. 104. One year of regular college work with an aggregate of at least 32 semester-credits, including the education courses, is required.

SUBJECTS

EDUCATIONAL PSYCHOLOGY

104 EDUCATION—ELEMENTARY PSYCHOLOGY. Class 3 hours. Credit 3 or 1.

When taken later than the Sophomore year, the credit is 1 hour.
Required of candidates for the grammar-grade or two-year certificate.
An introductory course in human psychology, especially adapted to the needs of prospective teachers in elementary schools.

203 EDUCATION—GENERAL PSYCHOLOGY. Class 3 hours. Credit 3.

Not open to Freshmen.
Required of Sophomores in the School of Education.
A systematic course in the fundamental principles of physiological psychology.

204 EDUCATION—EDUCATIONAL PSYCHOLOGY. Class 3 hours. Credit 3.

Prerequisite: Edu. 203.
Required of Sophomores in the School of Education.
A course dealing with the applications of physiological psychology to educational problems.

309 EDUCATION—PSYCHOLOGY OF CHILDHOOD. Class 2 hours. Credit 2.

Prerequisite: Edu. 203.
A study of physiological and psychological development during the period of childhood, with special emphasis upon child problems facing parents and elementary school teachers.

310 EDUCATION—PSYCHOLOGY OF ADOLESCENCE. Class 2 hours. Credit 2.

Prerequisite: Edu. 203.
A study of physiological and psychological development during the period of adolescence, with special emphasis upon problems facing parents and high school teachers.

311 EDUCATION—EXPERIMENTAL PSYCHOLOGY. Class 1 hour, laboratory 3 hours. Credit 2.

Prerequisite: Edu. 203.
An introductory course in laboratory psychology. Individual and group experiments upon typical psychological problems.

312 EDUCATION—EXPERIMENTAL EDUCATION. Class 1 hour, laboratory 3 hours. Credit 2.

Prerequisite: Edu. 311.
The methods and results of typical experiments in the several fields of experimental education, illustrated by individual and group experiments.

420 EDUCATION—MENTAL TESTS. Class 1 hour, laboratory 3 hours. Credit 2.

Prerequisite: Edu. 203 and Edu. 204.

A quantitative study of psychical processes with practice in the giving of several of the more standard forms of intelligence tests.

434 EDUCATION—SOCIAL PSYCHOLOGY. Class 2 hours. Credit 2.

Prerequisite: Edu. 203.

A study of human nature from the standpoint of social behavior.

EDUCATIONAL PHILOSOPHY

305 EDUCATION—HISTORY OF EDUCATION. Class 3 hours. Credit 3.

Not open to Freshmen.

Required of Juniors in the School of Education.

The history of educational ideals and practices, with special emphasis upon the modern periods.

307 EDUCATION—RURAL EDUCATION. Class 2 hours. Credit 2.

Given regularly in Summer School.

The special problems of education in the country, with a detailed study of school consolidation and the county unit of administration.

314 EDUCATION—EDUCATIONAL CLASSICS. Class 2 hours. Credit 2.

Prerequisite: Edu. 305.

A first-hand acquaintance with some of the educational literature of Plato, Rousseau, Spencer, Hall and Dewey.

405 EDUCATION—ETHICS AND MORAL EDUCATION. Class 2 hours. Credit 2.

Open to Juniors and Seniors.

A study of fundamental moral principles and their application to education.

407 EDUCATION—PHILOSOPHY OF EDUCATION. Class 2 hours. Credit 2.

An advanced course intended especially for graduate students in the School of Education.

A comparative study of the leading philosophies of education of recent times, including idealism, naturalism and pragmatism.

421 EDUCATION—GENERAL SOCIOLOGY. Class 2 hours. Credit 2.

Open to Juniors and Seniors.

Required of Seniors in the School of Education.

A brief survey of functional sociology with special emphasis upon the home and the school as examples of social institutions.

422 EDUCATION—RURAL SOCIOLOGY. Class 2 hours. Credit 2.

Not open to Freshmen.

A study of sociological conditions and problems in rural life.

431 EDUCATION—VOCATIONAL EDUCATION. Class 2 hours. Credit 2.

Prerequisite: Edu. 203.

A brief history of the vocational ideal in education, together with a study of current problems in vocational guidance and training.

EDUCATIONAL ADMINISTRATION

103 EDUCATION—SCHOOL HYGIENE AND MANAGEMENT. Class 3 hours. Credit 3 or 1.

When taken later than the Sophomore year the credit is 1 hour.

Required of Freshmen in the School of Education, candidates for the special college certificate, and candidates for the grammar-grade or two-year certificate.

The application of physiological laws to education, together with a study of classroom management.

408 EDUCATION—SCHOOL ADMINISTRATION. Class 2 hours. Credit 2.

Prerequisite: Edu. 316.

Required of Seniors in the School of Education.

A course dealing with typical problems of high school principals and superintendents of public school systems.

423 EDUCATION—EDUCATIONAL MEASUREMENTS. Class 1 hour, laboratory 3 hours. Credit 2.

Prerequisite: Edu. 203 and 204.

Required of Seniors in the School of Education.

A study of some of the more important quantitative standards used in measuring progress in school subjects, including practice in their use.

501 EDUCATION—SEMINAR IN EDUCATION. Class 2 hours. Credit to be arranged.

An advanced course intended especially for graduate students in the School of Education.

Thesis problems of individual students are reported upon and discussed.

502 EDUCATION—SCHOOL SURVEYS. Class 2 hours. Credit to be arranged.

An adavnced course intended especially for graduate students in the School of Education.

An intensive study of typical educational surveys.

EDUCATIONAL METHODS

106 EDUCATION—METHODS OF TEACHING THE COMMON BRANCHES. Class 3 hours. Credit 3 or 1.

When taken later than the Sophomore year, the credit is 1 hour.

Required of Freshmen in the School of Education, candidates for the special college certificate, and candidates for the grammar-grade or two-year certificate.

A course dealing with special methods of teaching the subjects in the curriculum of elementary schools.

108 EDUCATION—METHODS OF TEACHING MUSIC IN ELEMENTARY GRADES. Class 2 hours. Credit 2.

Required of Freshmen in the School of Education.

A course dealing with modern methods of teaching music in elementary grades.

205 EDUCATION—METHODS OF TEACHING IN PRIMARY GRADES. Class 2 hours. Credit 2.

Given regularly in Summer School.

A study of general and special methods used in the first three grades, with some attention to kindergarten methods.

316 EDUCATION—METHODS OF TEACHING IN HIGH SCHOOL. Class 3 hours. Credit 3.

Prerequisite: Edu. 203.
Required of Juniors in the School of Education.
A course dealing with special methods of teaching the subjects in the high school curriculum, together with some general principles of high school education.

416 EDUCATION—METHODS OF TEACHING ENGLISH IN HIGH SCHOOL. Class 2 hours. Credit 2.

Open to Juniors and Seniors with prerequisites in English.
This course should be taken by prospective teachers of English in high school.

425 EDUCATION—OBSERVATION AND PRACTICE-TEACHING. Class 1 hour, laboratory 3 hours. Credit 2.

Required of Seniors in the School of Education.
Students in the School of Education are required to do observation and practice-teaching in the two subjects in which they are majoring. The Secondary School of the Oklahoma A. and M. College is used for this purpose, and the work is under the supervision of the Principal of the Secondary School.

426 OBSERVATION AND PRACTICE-TEACHING. Class 1 hour, laboratory 3 hours. Credit 2.

Required of Seniors in the School of Education.
A continuation of Edu. 425.

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SUMMER SCHOOL

HERBERT PATTERSON, *Director*

CALENDAR

Registration, Monday, May 31, 8:00 a. m. to 5:00 p. m.
Classes begin Tuesday, June 1, 8:00 a. m.
Convocation, Wednesday, June 2, 11:00 a. m.
National holiday, Monday, July 5.
Final examinations, Wednesday and Thursday, July 28 and 29.
Summer School closes Friday, July 30.

FACULTY

The regular College professors and instructors furnish the instruction during the Summer School. This insures excellent teaching.

HISTORY

For twelve years the Summer School has been an important part of the service the Oklahoma A. and M. College has been rendering to the State of Oklahoma. The first Summer School was held in 1908 with an enrollment of 191. Since then the enrollment has steadily increased, as indicated by the following figures:

ENROLLMENT IN SUMMER SCHOOL

1908, 191; 1909, 222; 1910, 266; 1911, 346; 1912, 307; 1913, 322; 1914, 402; 1915, 492; 1916, 520; 1917, 395; 1918, 421; 1919, 576.

PURPOSE

The Summer School is intended to meet the needs of the following classes of people:

Teachers who are seeking to improve in their work and are able to attend College during the summer months only. There are unusual opportunities offered by the Oklahoma A. and M. College for those preparing to teach agriculture, home economics and manual training, as well as the academic subjects of the high schools and grades. College credits toward graduation and the bachelor's degree may be secured by teachers at the same time that they are increasing their ability as teachers.

Prospective teachers, and teachers who wish to secure credits to be applied toward the various teachers' certificates granted in the State of Oklahoma. All studies are offered which are required for teachers' first, second and third-grade certificates. When credit is earned in any of these subjects, county superintendents will accept credits in place of an examination in such subjects.

Students who desire to shorten their college course. A wide variety of regular college credit courses is given during the summer.

TERMS OF ADMISSION

There are no entrance requirements for teachers and those who are preparing to teach.

Those taking work toward graduation from College will be governed by the rules of the College relating to admission and degrees, as stated elsewhere in this catalog.

CREDITS

In order to complete regular semester subjects during the nine weeks of Summer School, the number of class hours in each subject is doubled. Students are expected to select a program of studies similar in amount to that of the regular College year. The number of hours taken may vary from 12 to 20. The maximum credit allowed for summer work is 10 semester-credits in College work and 1½ units in Secondary School work.

TEACHERS' EXAMINATIONS

The regular State examination for third-grade or one-year certificates for teachers are given at the College. These examinations are supervised by the College instructors, but all fees and papers are forwarded to county superintendents. Teachers should consult their county superintendents in regard to their examination papers and grades. The certificates secured by taking these examinations at the Oklahoma A. and M. College are accepted in any county in the State of Oklahoma.

TEACHERS' EMPLOYMENT BUREAU

The free services of the Teachers' Employment Bureau are available for teachers, prospective teachers, superintendents and school boards. Blanks for this purpose are found in the Secretary's office, Morrill Hall.

EXPENSES

Matriculation Fee.—All students registering for any work are required to pay $2.50 as a library and laboratory fee. No refund is made.

Rooms in Woman's Building or Boys' Dormitory.—Attractive furnished rooms with all modern conveniences may be had in the Woman's Building or the Boys' Dormitory at $5.00 per month for each person, two in a room. Application for these rooms should be made in advance to the Registrar.

Rooms With Private Families.—Furnished rooms can be obtained in Stillwater at from $5.00 to $10.00 a month, when two occupy the room.

The College Cafeteria.—Board at the College Dining Hall is provided on the cafeteria plan at actual cost. Each student pays for what he selects, and the cost varies according to the amount he eats. The average cost at present is about 26 cents a meal. The cafeteria plan provides opportunity for a larger menu from which to choose, and in general is more satisfactory than the plan of having a set table and no choice.

SUMMER SCHOOL BULLETIN

An illustrated Summer School bulletin, giving detailed information regarding the courses offered will be sent upon request. Inquiries concerning the Summer School should be addressed to the Director of the Summer School.

THE SCHOOL OF COMMERCE AND MARKETING

H. W. MOORHOUSE, *Dean and Professor of Economics and Marketing*
S. C. BEDINGER, *Professor of Law*
WILLARD RUDE, *Assistant Professor of Secretarial Training*
L. M. GRAVES, *Assistant Professor of Economics and Finance*
GEORGE H. ABBOTT, *Assistant Professor of Accounting*
ANNIE FRANCIS, *Assistant in Secretarial Training*

The School of Commerce and Marketing offers four years of work leading to a bachelor of science degree.

The school has two purposes. One is to prepare for business management. The other is to train for technical business branches, such as accounting, advertising, traffic and statistical work.

Business has come to be a profession requiring as careful training as law and medicine. No longer can guesswork carry the manager through the maze of shifting commercial conditions. His course must be charted. There is a developed science of business for his guidance.

The School of Commerce and Marketing tries to combine in a four-year course the subjects which are essential for every businessman, and will at the same time give him the right degree of specialized training. Every business man needs a working knowledge of accounting, commercial law, marketing, taxation, corporation organization, traffic rates, labor management and financing. In addition many men would like to qualify as certified public accountants or as managers of sales, advertising, credit and collections, traffic, foreign trade, employment and investments.

Or it may be that some will prefer management in the field of agriculture, petroleum development, industrial chemistry or engineering. There is the closest cooperation between all of the departments of the College. The diversification in the College makes possible a wide range of electives. The students in Commerce and Marketing are urged to choose a definite line of technical work in other departments and follow it through. They are also urged to reach into other departments for subjects which will widen their outlook and make them broadgauged business men.

The student should not make the mistake of thinking that he can step immediately from this course into an important executive position. That is not the idea. Experience at the bottom of the business must be added, and then should come increasing responsibility and an assured place at the top.

It is believed that this course gives a deep grasp of business knowledge, and that the graduate who has initiative and is willing to work will always make a big place for himself in his chosen field of affairs.

COURSES IN THE SCHOOL OF COMMERCE AND MARKETING

The following outline of study represents the required and elective work in the School of Commerce and Marketing. The courses are numbered, beginning with one hundred in the Freshman year; odd numbers, as 101, represent the first semester's work in the subject and the even numbers, as 102, the second semester's work. Subjects of the Sophomore, Junior and Senior years are numbered accordingly, two hundred for Sophomore, three hundred for Junior and four hundred for Senior work. One hour of laboratory period is equivalent to one-third of a classroom period in estimating the number of hours per week to be taken.

The total requirements for graduation are 128 credits exclusive of any credits given in military science and physical education. Sophomore electives are open to Juniors and Seniors where the necessary prerequisite work is taken.

In the outline below, figures without parenthesis indicate hours of classwork, in parenthesis, hours of laboratory work.

FRESHMAN YEAR

FIRST SEMESTER	Hours		Cr.
Eng. 101, College	3		3
Chem. 101, Inorganic	3	(4)	4⅓
Econ. 103, Economic Resources	3		3
M. E. 103, Mechanical Drawing		(3)	1
Pub. Spk. 101, Essentials	2		2
Typewriting		(5)	1⅔
Physical Education		(3)	
Military Science		(3)	

SECOND SEMESTER	Hours		Cr.
Eng 102, College	3		3
Chem. 102, Inorganic	2	(4)	3⅓
Econ. 104, Trade Routes	3		3
Econ. 102, Elements of Busines..s..	2		2
Hist. 306, Industrial History of the United States	3		3
Typewriting		(5)	1⅔
Physical Education		(3)	
Military Science		(3)	

SOPHOMORE YEAR

FIRST SEMESTER	Hours		Cr.
Econ. 201, Principles of Economics	3		3
Econ. 202, Principles of Commerce	3		3
Econ. 209, Elements of Accounting	2	(3)	3
Eng. 203, News-Writing	2		2
Elective	6		6
Military Science		(3)	

SECOND SEMESTER	Hours		Cr.
Econ. 206, Business Management..	3		3
Econ. 208, Business Statistics	3		3
Econ. 210, Principles of Accounting	2	(3)	3
Eng. 204, Magazine and Feature-Writing	2		2
Elective	5		5
Miltiary Science		(3)	

JUNIOR YEAR

FIRST SEMESTER	Hours	Cr.
Econ. 303, Money and Banking	3	3
Econ. 311, Market Organization	3	3
Econ. 317, Law of Contracts and Sales	3	3
Electives	7	7

SECOND SEMESTER	Hours	Cr.
Econ. 301, Corporation Finance	3	3
Econ. 312, Principles of Selling	3	3
Econ. 318, Law of Business Associations	3	3
Elective	7	7

SENIOR YEAR

FIRST SEMESTER	Hours	Cr.	SECOND SEMESTER	Hours	Cr.
Econ. 415, Foreign Trade	3	3	Econ. 419, Public Finance	3	3
Econ. 421, Transportation	3	3	Econ. 424, Labor Economics	3	3
Econ. 427, Law of Negotiable Instruments and Suretyship	3	3	Economics Elective	3	3
Elective	7	7	Elective	7	7

ECONOMICS ELECTIVES

ACCOUNTING

	Hours		Cr.
Econ. 315, Corporation Accounting	2	(3)	3
Econ. 316, Corporation Accounting	2	(3)	3
Econ. 407, Cost Accounting	2	(3)	3
Econ. 423, Auditing	2	(3)	3
Econ. 426, C. P. A. Problems	3		3

LAW

	Hours	Cr.
Econ. 428, Law of Real Property and Wills	3	3

GENERAL

	Hours	Cr.
Econ. 414, Rural Economics	2	2
Econ. 417, City Economics	2	2

All electives are subject to the approval of the Dean of the School of Commerce and Marketing.

SUBJECTS

102 ELEMENTS OF BUSINESS. Class 2 hours. Credit 2.

Registration limited strictly to students in commerce and marketing.

An elemental study of business and business men for the purpose of observing the principles of business success in order that the students, in the first year of their course, may begin to plan and pursue their future studies more effectively.

103 ECONOMIC RESOURCES. Class 3 hours. Credit 3.

A study of the relation of industrial development to the natural environment; the effect of climate, topography, etc., upon the geographical distribution of all the great primary industries, such as cereals, animal industries, sugar, fisheries, forestry and mining; also the basic factors of manufacturing and characteristics of principal industries—iron and steel, textiles, leather, machinery and chemicals.

Text: "Industrial and Commercial Geography", Smith.

104 TRADE ROUTES. Class 3 hours. Credit 3.

The economic and geographical basis of commerce. A detailed study of all the continental and ocean trade routes, character of the traffic, ports and coaling stations, ocean freights and shipping organization, world commercial organization, commercial centers and national commercial policies.

Text: "Industrial and Commercial Geography", Smith.

201 PRINCIPLES OF ECONOMICS. Class 3 hours. Credit 3.

The foundation for all of the other studies in economics. Serves as an introduction to the consideration of money and banking, commerce, business organization and administration, labor problems, public finance, etc. The science of economics is presented according to the four classical divisions—production, exchange, distribution, consumption.

Text: "Political Economy", Gide.

202 PRINCIPLES OF COMMERCE. Class 3 hours. Credit 3.

Prerequisite: Econ. 201.

A survey of all the organized machinery involved in the exchange of com-

modities in both domestic and foreign commerce. Commerce is dealt with as a branch of production, and in its historical development. Introduction to the technique of wholesale and retail business, banking, transportation, warehousing and insurance. Attention is directed to the laws of commerce and customary forms of all commercial bills and documents.

206 BUSINESS MANAGEMENT. Class 3 hours. Credit 3.

Prerequisite: Econ. 201.

A survey of the problems confronting the business manager for the purpose of giving the student early in the course a view of business in all its relationships and familiarity with its technique. Following are some of the points examined: The business environment, forms of enterprises, financing, office administration, wage systems and control of labor, purchasing and selling, traffic, credit, forecasting business conditions, etc.

Text: "Principles of Business", Gerstenberg.

208 BUSINESS STATISTICS. Class 3 hours. Credit 3.

Prerequisite: Econ. 201.

A study of the handling of economic problems by the statistical method, including basic principles, collection and tabulation of data, determination of types and averages, coefficients of variation, index numbers, and methods of graphic presentation. Most of the work consists of practical problems, and each student is given independent assignments in statistical investigation.

Text: "Elements of Statistical Method", King.

209 ELEMENTS OF ACCOUNTING. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: Econ. 201.

Elements of double and single-entry; single proprietorship and partnership accounting; construction of simple financial statements.

Text: "Accounting—Theory and Practice" (Vol. I), Kester.

210 PRINCIPLES OF ACCOUNTING. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: Econ. 201, 209.

A study of the principles and theory of double-entry accounting, beginning with the assets and liabilities statement, and the income and expense statement, and then examining the sources from which these two final summaries are made, namely, the ledger and journal. Practical problems are worked out in detail. Practice is given in closing the books, the trial balance, partial summarization, adjustment entries, etc.

Text: "Accounting—Theory and Practice" (Vol. I), Kester.

301 CORPORATION FINANCE. Class 3 hours. Credit 3.

Prerequisite: Econ. 201.

The one-man business, partnership and corporation are studied and compared. Special emphasis is placed on the corporation in its many ramifications as holding company, merger, amalgamation, trust, etc. Pooling agreements, promotion, sale of securities, receivership, and Government regulation are covered thoroughly.

Text: "Business Finance", Lough.

303 MONEY AND BANKING. Class 3 hours. Credit 3.

Prerequisite: Econ. 201.

The relation of money and credit to every business activity is shown and studies are made of the currency systems of this and foreign countries. Special attention is given to an analysis of commercial and investment paper. A thorough survey is made of the history, organization and present operation of

national banks, state banks, trust companies, treasury systems, Federal Reserve banks, Federal Land banks, etc.

Text: "Money and Banking", Scott.

311 MARKET ORGANIZATION. Class 3 hours. Credit 3.

Prerequisite: Econ. 201-202.

A study, in all their relationships, of products, markets, consumer-demand, prices, and the agencies which cooperate in taking the product from producer to consumer. Intensive examination is made of the work of the exchanger, such as, wholsaler, jobber, commission dealer, broker, scalper, manufacturer's agent, retailer, including department store, mail-order house, chain-store, etc.

312 PRINCIPLES OF SELLING. Class 3 hours. Credit 3.

Prerequisite: Econ. 201-202.

A survey of the principles of salesmanship, including advertising. Selling talks, sales letters and advertising copy are analyzed and practice in their preparation and application is given. Lessons are drawn from sales departments of large corporations. Goods, prices and market conditions are studied.

Text: "Personal Efficiency and Selling", Allen.

315 CORPORATION ACCOUNTING. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: Econ. 210.

An examination from accounting standpoint of the corporation balance-sheet; principles of valuation, depreciation; mercantile credits; wasting assets; contingent liabilities; profits, surplus and reserves; dividends, sinking fund, liquidation, consolidations, branches, reports of receivers and trustees.

Text: "Accounting—Theory and Practice" (Vol. II), Kester.

316 CORPORATION ACCOUNTING. Class 2 hours, laboratory 3 hours. Credit 3.

Continuation of Econ. 315.

317 LAW OF CONTRACTS AND SALES. Class 3 hours. Credit 3.

Prerequisite: Econ. 201.

Principles of law are drawn from the study of cases. Outline for contracts: Formation, interpretation, operation, discharge. Outline for Sales: Formation of sale contract, transfer of property and title, performance, rights of unpaid seller against the goods, actions for breach.

Text "Cases on: Commercial Law", Bays.

318 LAW OF BUSINESS ASSOCIATIONS. Class 3 hours. Credit 3.

Prerequisite Econ. 201-317.

Principles of law are deduced from the study of cases. Outline for Agency: Relation of principal and agent, mutual rights and duties, rights and obligations of third persons, termination of relationship. Outline for partnership: Creation, firm name, rights and liabilities, termination. Outline for corporations: Nature of corporations, classes, creation, charter, powers and liabilities.

406 LAW OF CONTRACTS. Class 2 hours. Credit 2.

Principles of law are drawn from the study of cases. Contracts are examined under the following divisions: Formation, interpretation, operation, discharge. This subject is offered for the benefit of engineers, agriculturists and others who have not the time to take the longer law courses.

Text: "Cases on Commercial Law", Bays.

407 COST ACCOUNTING. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: Econ, 201, 210.

The functions of costs and their relation to management are first studied; cost systems by which costs are determined are examined; the interpretation of the cost data is given special attention.

415 FOREIGN TRADE. Class 3 hours. Credit 3.

Prerequisite: Econ. 201, 202.

The principles as well as the technique on which foreign trade is based and developed are emphasized. Attention is called to the characteristics of foreign peoples and the material resources of the countries. Facts are tabulated concerning amount and kind of exports and imports, and the best lines for export development. Examination is made of tariffs, treaties, regulations of ports, foreign exchange, work of consular agencies, etc.

414 RURAL ECONOMICS. Class 2 hours. Credit 2.

Prerequisite: Econ. 201.

A study of farm business and rural life. A view of the relation of the farm home, social life, good roads, community cooperation, tenantry, soil con servation, standardization of crops, rural credits, and better marketing to rural progress. A broad view of the possibilities of reorganizing agriculture and rural life. A thorough survey is made of rural conditions in foreign countries, United States and Oklahoma.

417 CITY ECONOMICS. Class 2 hours. Credit 2.

Prerequisite: Econ. 201.

A view of municipal administrative problems. The franchise and the regulation and ownership of public utilities are subjects for special consideration. Special attention is also given to the commission and city manager forms of government.

419 PUBLIC FINANCE. Class 3 hours. Credit 3.

Prerequisite: Econ. 201.

A general consideration of public revenues and expenditures. The theory and facts of public expenditure. Taxation: General theory; taxing systems of the United States and foreign countries; questions of administration, effect and incidence. Treasury management, public credit and the budget.

Text: "Public Finance", Adams.

421 TRANSPORTATION. Class 3 hours. Credit 3.

Prerequisite: Econ. 201.

Deals primarily with railroad economics. Rates are studied in their effect upon commerce and industry, and the rate theories compared. Questions of routing, adjustment of claims, freight classification, etc., are examined. Railroad administration in foreign countries is investigated and study is made of governmental ownership.

423 AUDITING. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: Econ. 201, 316.

The duties of the auditor are studied and correlated with those of the accountant and cost accountant. Special attention is given to the qualifications of the auditor and the methods of conducting an audit. Practical problems are worked out.

424 LABOR ECONOMICS. Class 3 hours. Credit 3.

Prerequisite: Econ. 201.

A study of labor conditions from the standpoint of manager, laborer and public. A survey of scientific management, wage systems, factory laws, accident compensation, strikes, arbitration of labor disputes, organized labor, woman and child labor, welfare work, etc.

426 C. P. A. PROBLEMS. Class 3 hours. Credit 3.

Prerequisite Econ. 316, 318, and Senior standing.

A study of the problems given in certified public accountant examinations in the different States.

427 NEGOTIABLE INSTRUMENTS AND SURETYSHIP. Class 3 hours. Credit 3.

Prerequisite: Econ. 201-317.

Principles of law drawn from the study of cases. Outline for negotiable instruments: Negotiability, requisites, rights of holder in due course, presentment, dishonor, protest and discharge. Outline for Suretyship: Contract of surety, surety's liability and discharge, remedies.

Text: "Cases on Commercial Law", Bays.

428 LAW OF REAL PROPERTY AND WILLS. Class 3 hours. Credit 3.

Prerequisite: Econ. 201-317.

Principles of law drawn from the study of cases. Outline for real property: Landlord and tenant, the lease, transfers, rents, fixtures, conveyance, mortgages. Outline for wills: Intestate, succession, nuncupative wills, gifts causa mortis, incapacity, undue influence, holographic wills, necessity of subscription.

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SECRETARIAL STUDIES

These studies can be taken for limited credit by students in commerce and marketing.

They may also be taken by those who desire to register for special work. All such special students must have a minimum of 14 high school units or be mature, and prove that they can do a grade of work which will meet the approval of the Dean of Commerce and Marketing.

SHORTHAND 1. Class 5 hours. Credit 5.

This course covers the fundamental principles of Gregg shorthand found in the first eighteen lessons of the manual, with special emphasis placed upon phonetics. A test is given on each lesson. The aim is accuracy rather than speed.

SHORTHAND 2. Class 5 hours. Credit 5.

The manual is completed, and "The Principal Series of Gregg Speed Studies" is started, with repetition on classified letters. Additional supplementary practice is given on average business letter matter. Simple business letters are transcribed on the typewriter. The student will be able to take simple dictation at the rate of seventy to ninety words a minute.

DICTATION 1. Class 5 hours. No credit.

In this course the "Gregg Speed Studies" is completed. Daily supplementary dictation is given on classified letters, magazine articles, newspaper clippings, etc. This dictation is new matter, and the student will be able to take it at the rate of 90 to 100 words a minute.

DICTATION 2. Class 5 hours. No credit.

Ofice training is completed and the student is trained in practical secretarial work in a model office. Additional dictation is given on more difficult business letters, all work being transcribed on the typewriter and filed. If

possible some court reporting is done. Each student is required to report two lectures and make transcriptions of notes. The student is given daily drills in the routine work of a business office with all the modern appliances to work with. The student will be able to take dictation at a speed of 100 to 120 words a minute.

TYPEWRITING. Credit limited to 3⅓.

Practice hours as arranged.

Requirements: Two budgets and a speed of twenty words a minute, with not more than five errors, give 1⅔ credits. Four budgets and a speed of forty words a minute net, with not more than five errors, give 3⅓ credits.

Text: "Medal of Honor Edition of Rational Typewriting".

ADVANCED TYPEWRITING. No credit.

Practice hours as arranged.

Transcription of shorthand notes and speed drills. This course is used to give any degree of proficiency desired.

OFFICE TRAINING. Class 2 hours. Credit 2.

Gives the finishing touches to shorthand and typewriting. Thorough instruction in business ethics, the mechanics of letter-writing, uses of business forms and papers, filing, bills, shipping, duplicating, constructing business letters and, in fact, any other work likely to confront the office clerk or office manager.

COMMERCIAL CORRESPONDENCE. No credit.

Thorough practice in every branch of correspondence, including letters, dealing with credit, collections, inquiries, purchases, sales, adjustments.

BOOKKEEPING 1. Class 9 hours. No credit.

Elementary work in fundamental principles of debit and credit, followed by work in columnar books and statements of various kinds. Special work in closing of ledgers and making of business, trading, profit and loss and financial statements. In the more advanced work is included single proprietorship, partnership and banking bookkeeping.

BOOKKEEPING 2. Class 9 hours. No credit.

Continuation of Bookkeeping 1.

COMMERCIAL ARITHMETIC. Class 3 hours. No credit.

Required of all commerce and marketing students who show in their Elementary Accounting course the need of it.

A study and review of arithmetical principles and processes essential in discount, trade discounts, percentage, aliquot parts, equation of accounts, commissions, computations connected with investments in stocks and bonds.

PENMANSHIP AND SPELLING. Class 3 hours. No credit.

Required of commerce and marketing students who show in their other work the need of it.

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THE SCHOOL OF VETERINARY MEDICINE

L. L. LEWIS, *Dean and Professor of Veterinary Medicine*
C. H. McELROY, *Assistant Professor*
H. W. ORR, *Assistan Professor*

The growing importance of the livestock industry of the State has made a course in Veterinary Medicine a necessity. The work is outlined so as to provide a thorough and well-balanced course of instruction leading to the degree of Doctor of Veterinary Medicine.

The entrance requirements to this course of study include the presentation of 15 units of high school work. (See entrance credits in first of catalog for detailed statement.)

Candidates for the degre eof Doctor of Veterinary Medicine must have attained the age of 21 years, and satisfactorily completed all of the courses as outl.ned.

There are many opportunities in professional and scientific work for young men of thorough training in veterinary medicine. In order to meet th edemands that are made on thise entering the field of private practice or positions requiring technical knowledge, the veterinarian must have a good general education in addition to the specialized work in veterinary medicine.

The last two years' work in veterinary medicine will not be given in 1919-20.

Some of the more prominent fields of work open to veterinarians are as follows:

Private Practice.—There are many good fields of work, not only in Oklahoma, but in other States. There is a growing interest in the South in the livestock business, and as money invested in livestock increases, so will the demand for competent veterinarians.

Civil Practice.—Much important work in the Unitde States Department of Agriculture is open only to men who are graduates from veterinary colleges.

State and City Work.—The positions of State and Assistant State Veterinarians and municipal food inspectors are open as a rule only to qualified veterinarians.

The army service also offers a field of work that is becoming attractive to qualified men.

COURSES IN THE SCHOOL OF VETERINARY MEDICINE

The following outline of study represents the required work in the School of Veterinary Medicine. The courses are numbered, beginning with one hundred in the Freshman year; odd numbers, as 101, represent the first semester's work in the subject, and the even numbers, as 102, represent the second semester's work. Freshman and higher class subjects are numbered as hundreds, one hundred for Freshman work, two hundred for Sophomore work, etc. The laboratory work is in parenthesis, and three hours of this work is equivalent to one theory hour, or 1 credit. To graduate, a student must complete the following courses as outlined. Registration will not be permitted in less than 12 nor more than 20 credit hours.

FRESHMAN YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
V. M. 101, Anatomy	2	(6)	4	V. M. 102, Anatomy	2	(6)	4
V. M. 103, Histology	2	(4)	3⅓	V. M. 104, Histology	2	(4)	3⅓
Zool. 201, General	2	(4)	3⅓	Chem. 102, Inorganic	2	(4)	3⅓
Chem. 101, Inorganic	3	(4)	4⅓	Zool. 402, Embryology	2		2
Physical Education		(3)		A. H. 202, Breeds	2	(3)	3
Military Science		(3)		Physical Education		(3)	
				Military Science		(3)	

SOPHOMORE YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
V. M. 201, Anatomy	2	(6)	4	V. M. 202, Anatomy	2	(6)	4
V. M. 203, Materia Medica	3		3	V. M. 204, Materia Medica	3		3
V. M. 205, Pathology	2	(4)	3⅓	V. M. 206, Pathology	2	(4)	3⅓
V. M. 211, Physiology	3	(2)	3⅔	V. M. 212, Physiology	3	(2)	3⅔
V. M. 209, Parasitology	2	(2)	2⅔	V. M. 208, Pharmacy	1	(3)	2
Military Science		(3)		A. H. 306, Animal Nutrition	3		3
				Military Science		(3)	

JUNIOR YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
V. M. 301, Theory and Practice	3		3	V. M. 302, Theory and Practice	4		4
V. M. 317, Therapeutics	3		3	V. M. 304, Therapeutics and Toxicology	4		4
V. M. 305, Surgery	2		2	V. M. 306, Surgery	3		3
V. M. 307, Surgical Anatomy		(4)	1⅓	V. M. 310, Bacteriology	3	(4)	4⅓
V. M. 303, Clinical Diagnosis	2		2	V. M. 314, Clinic		(6)	2
V. M. 311, Special Pathology	1	(3)	2				
V. M. 319, Soundness		(2)	⅔				
V. M. 321, Restraint		(2)	⅔				
V. M. 313, Clinic		(7)	2⅓				

SENIOR YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
V. M. 401, Theory and Practice	4		4	V. M. 402, Theory and Practice	4		4
V. M. 403, Surgery	3		3	V. M. 404, Special Surgery	2		2
Bact. 403, Technical	3	(4)	4⅓	V. M. 406, Milk and Dairy Inspection	1	(2)	1⅔
V. M. 405, Dentistry	1		1	V. M. 408, Laboratory Diagnosis		(2)	⅔
V. M. 411, Obstetrics	3		3	V. M. 410, Meat Inspection	3		3
V. M. 415, Clinic		(7)	2⅓	V. M. 412, Lameness and Shoeing	2	(4)	3⅓
				V. M. 414, Jurisprudence	1		1
				V. M. 416, Clinic		(6)	2

DESCRIPTION OF COURSES AND EQUIPMENT

The equipment used for instruction in veterinary medicine includes that of the laboratories of bacteriology, physiology, chemistry and zoology. Separate buildings are provided for the work in

antomy and the medical and surgical treatment of animals. Such facilities will enable students to undertake their work with all conveniences and equipment afforded by well-established courses of instruction.

SUBJECTS

101 ANATOMY. Class 2 hours, laboratory 6 hours. Credit 4.

Osteology and myology of head and neck.

A comparative study of the muscles of the head and neck of the horse. Instruction in anatomy extends over a period of two years, and is given by lectures, recitations and laboratory work. Each student is required to make one or more complete dissections of the horse, with comparative dissections of the trunk and viscera of other domesticated animals.

Text: "The Anatomy of the Domestic Animals", Sisson.

102 ANATOMY. Class 2 hours, laboratory 6 hours. Credit 4.

Prerequisite: Anat. 101.

Myology of the thoracic limb and trunk.

103 HISTOLOGY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Histology is microscopic anatomy, and in the allotted time the student is required to collect, prepare and make drawings of all the different tissues of the body. This course is necessary in order that the later instruction in the various disease processes may be fully understood.

104 HISTOLOGY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

A continuation of the work of the previous semester.

Text: "Normal Histology", Piersol.

Reference: Ferguson; Davidoff and Huber; Stedman's "Medical Dictionary.

201 ANATOMY. Class 2 hours, laboratory 6 hours. Credit 4.

Prerequisite: Anat. 101, 102.

Myology of pelvic limb and splanchnology.

In addition to the dissection of the muscles and ligaments of the pelvis and hind limbs, dissections of the organs and viscera of the trunk will be commenced, and continued through the next semester.

202 ANATOMY. Class 2 hours, laboratory 6 hours. Credit 4.

Prerequisite: Anat. 101, 102, 201.

Angiology and neurology.

The work of this semester will be a continuation of the dissections of the viscera and will include a special study of the circulatory and nervous systems of the horse. Surgical regions are especially emphasized.

203-204 MATERIA MEDICA. Class 3 hours. Credit 3.

Prerequisite: Freshman Chem. 101 and 102.

Materia medica is a subject that deals with the origin, derivation, physical and chemical properties and tests of purity of medical materials. The subject is taught throughout the second year, the first half being inorganic and the second half organic.

Text: "Materia Medica and Therapeutics", Winslow.

205-206 GENERAL PATHOLOGY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Prerequisite: Vet. Med. 103 and 104.

A study of the effects of disease processes upon the body tissue and fluids

without reference to any particular disease. In the laboratory these processes are studied and drawn with the aid of the microscope and projectoscope. The students are instructed in laboratory technique.

208 PHARMACOLOGY. Class 1 hour, laboratory 3 hours. Credit 2.

A lecture and laboratory course given to the second-year class during the second semester, embracing a study of the theory of pharmaceutical methods and operations, and the compounding of various preparations with special reference to prescription work.

209 PARASITOLOGY. Class 2 hours, laboratory 2 hours. Credit 2⅔.

A study of internal and external parasites of the domestic animals is taken up and their methods of control and eradication discussed.

211-212 COMPARATIVE PHYSIOLOGY. Class 3 hours, laboratory 2 hours. Credit 3⅔.

By aid of lectures, demonstrations and tests, the comparative physiology of the domesticated animals is presented in a thorough and practical manner. The veterinary students have access to the well-equipped physiology laboratory of the School of Science and Literature, and are given every opportunity to demonstrate the functions of the different organs of the body by the aid of modern apparatus.

301 THEORY AND PRACTICE. Class 3 hours. Credit 3.

302 THEORY AND PRACTICE. Class 4 hours. Credit 4.

Theory and practice includes a study of the diseases of domesticated animals, their diagnosis and treatment, as met ini routine practice. This subject is taught for two years. In that length of time it is intended, by means of lectures and clinics, to acquaint the student with as great a variety of abnormal conditions as possible, and instruct him in their diagnosis and treatment.

303 CLINICAL DIAGNOSIS. Class 2 hours. Credit 2.

In presenting this subject, it is the intention of the instructor to condense, review and emphasize the methods used in diagnosing diseases.

304 THERAPEUTICS AND TOXICOLOGY. Class 4 hours. Credit 4.

Therapeutics is a study of the use of all agencies that are of value in the treatment of diseases and the relief of pain. Thus it is the application of the previous course in materia medica, with the additional emphasis on the toxication of drugs and antidotal measures to be employed in combating them.

305 SURGERY. Class 2 hours. Credit 2.

306 SURGERY. Class 3 hours. Credit 3.

Prerequisite: First and second-year anatomy.

The theory of veterinary surgery is given the third and fourth-year students in connection with the theory and practice of medicine and the hospital clinic. Methods of restraint, the use of different anesthetics and the general principles of surgical technique are taught the first semester of the Junior year. The different surgical diseases are then studied and discussed.

The clinic offers practical demonstrations of the principles discussed in class.

307 SURGICAL ANATOMY. Laboratory 4 hours. Credit 1⅓.

Prerequisite: Anat. 101, 102, 201, 202.

A review of the previous course, with special reference to the general topography and various surgical areas of the horse, ox, dog and pig.

Text: "Comparative Anatomy", Sisson.

Reference: "Surgical Anatomy", Share, Jones.

311 SPECIAL PATHOLOGY. Class 1 hour, laboratory 3 hours. Credit 2.

Prerequisite: Vet. Med. 205 and 206.

This work includes a study of disease processes in the different organs of the body and specific diseases. An introduction to postmortem technique is given and, when autopsies are available, the student will be taught to apply his knowledge in a practical way.

Text: "Veterinary Postmortem Technique", Crocker.

313 CLINIC. Laboratory 7 hours. Credit 2⅓.

314 CLINIC. Laboratory 6 hours. Credit 2.

317 THERAPEUTICS. Class 3 hours. Credit 3.

319 SOUNDNESS. Laboratory 2 hours. Credit ⅔.

A knowledge of the special phases of soundness from a legal standpoint is of the greatest value to a veterinarian. He should be able to advise his clients regarding the significance of weaknesses and blemishes, their probable transmissibility by breeding, etc. The hospital clinic furnishes abundant material to make this a thorough course of study.

321 RESTRAINT. Laboratory 2 hours. Credit ⅔.

The student is taught to confine animals for various surgical operations and manipulations. The hospital is equipped with operating table, stocks and casting harness for all surgical work.

401 THEORY ANR PRACTICE. Class 4 hours. Credit 4.

Prerequisite: 301-302.

402 THEORY AND PRACTICE. Class 4 hours. Credit 4.

Prerequisite: Vet. Med. 301-302 and 311.

Four hundred and one and 402 deal with the different phases of infectious diseases, their diagnosis and control.

Texts for all courses are the same.

Text: "Pathology and Therapeutics of the Diseases of Domesticated Animals", Hutyra and Marek.

Reference: Law, Hoare, Friedberger and Frohner.

403 SURGERY. Class 3 hours. Credit 3.

404 SPECIAL SURGERY. Class 2 hours. Credit 2.

These courses are a continuation of the work of the previous year, and include all the major operations.

Text: "Veterinary Surgery", Merilatt, Vols. I, II, III, IV.

Reference: Share, Jones, Cadoit and Adams.

405 DENTISTRY. Class 1 hour. Credit 1.

A study of the teeth of the domestic animals by aid of bones and models, and a consideration of the cause of their defects; prevention and treatment of same.

406 MILK AND DAIRY INSPECTION. Class 1 hour, laboratory 2 hours. Credit 1⅔.

In this course, classwork includes a study of the secretion of milk, its chemical properties and bacteriology; transmission of diseases of man by milk; methods of handling milk from cow to the consumer, and methods of herd and dairy farm inspection. The laboratory work includes the more important physical and chemical bacteriological and microscopic tests.

Text: "Principles and Practice of Milk Hygiene", Klein.

408 LABORATORY DIAGNOSIS. Laboratory 2 hours. Credit ⅔.

This course will include practice in the ordinary diagnostic methods with which the veterinarian should be familiar. Special attention will be given to the diagnosis of parasitic troubles and bacterial infections. Some work in urine and milk analysis will be given.

410 MEAT INSPECTION. Class 3 hours. Credit 3.

Meat inspection takes up a review of postmortem symptoms of different diseases of food-producing animals, especially those transmissible to man. The subject is of especial importance to students who contemplate entering the Government work of inspecting meat products after graduation. Side trips are taken to the packing houses where the work of inspecting meat products is in operation.

Text: "Meat Hygiene", Mohler and Eichorn.

411 OBSTETRICS. Class 3 hours. Credit 3.

After a brief review of obstetrical anatomy, the work is devoted largely to a consideration of the different abnormal conditions arising incident to parturition and the treatment.

Text: "Veterinary Obstetrics", Williams.

412 LAMENESS AND SHOEING. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Diseases of the foot and the effect of shoeing on their prevention and treatment. The instruction is of especial importance to the city practitioner.

Text: "Horseshoeing", Adams; "Diseases of the Foot", Reeks.

414 CLINIC. Laboratory 6 hours. Credit 2.

No school of medicine is stronger than its clinic. Here the student comes in actual contact with the problems relating to the care of sick animals. Hospital accommodations are furnished, and squads of students are assigned patients as they are presented. This work tends to impress upon the student the practical phase of his previous training.

415 CLINIC. Laboratory 7 hours. Credit 2⅓.

416 JURISPRUDENCE. Class 1 hour. Credit 1.

There are certain restrictions placed on the movements of livestock from one State or country to another by the United States and State livestock sanitary commissions. Many other legal and ethical obligations are presented in the practice of the veterinarian. That he may deal intelligently with these matters, an attempt is made to outline them and their correct solution. In addition, some fundamentals of business are outlined in the series of lectures given by different members of the Faculty of the School of Veterinary Medicine.

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DESCRIPTION OF THE SUBJECTS TAUGHT IN THE SCHOOL OF AGRICULTURE

The following subjects are given to students in agriculture in order that they may become familiar with some of the more common diseases that every stock-owner must treat:

309 VETERINARY ANATOMY. Class 2 hours, laboratory 2 hours. Credit 2⅔.

A study of some of the practical points of the anatomy of domesticated animals.

310 ANIMAL DISEASES. Class 2 hours, laboratory 2 hours. Credit 2⅔.

The more common diseases of livestock are discussed in this course. The laobratory work is intended to teach the student simple operations and familiarize him with practical means of restraining animals for operative purposes. Hygiene and the disposal of animals dead of infectious diseases is brougt out and special emphasis is placed on the administration of vaccines, uses of antiseptics, etc.

315 VETERINARY PHYSIOLOGY. Class 3 hours. Credit 3.

A fundamental course in veterinary physiology. Special emphasis will be given to the subjects of digestion, cirrculation and locomotion.

Text: "Veterinary Physiology", Smith.

THE SECONDARY SCHOOL

C. L. KEZER, *Principal*
J. H. CALDWELL, *Assistant Professor*
EDITH A. TITUS, *Instructor*
MRS. ALICE B. TRAVER, *Instructor*
ED McCARREL, *Instructor*
W. C. PAYNE, *Instructor*
HARRIET R. ENSWORTH, *Instructor*
HALLIE CLARK, *Instructor*
FEARN HAMILTON, *Instructor*
T. L. COLLIER, *Student Assistant*
R. Q. GOODWIN, *Student Assistant*
E. L. McBRIDE, *Student Assistant*

The Secondary School includes:

1. Non-Vocational Course.

The last three years of standard high school for college entrance or general culture.

A wide range of electives is provided in home economics, agriculture, trades and secretarial training.

2. For Teachers.

Subjects required for county certificates, and applying upon requirements for two-year State certificate.

3. Instruction in Vocational and allied branches of following courses:

(1) Vocational Agriculture, two years. See Agriculture (College).

(2) Vocational Home Economics, two years. See Home Economics (College).

(3) Trades (auto mechanics, cabinetmaking, carpentering, machine-shop), two years each. See Engineering (College).

4. Vocational and non-vocational courses for Federal students. The work is adapted to the ability and previous training of the students, and sections of grades lower than secondary are organized in English and arithmetic for those who need them. These courses are given in cooperation with the Federal Government.

The three vocational two-year courses are accepted for entrance, about 8 units. In case student decides to prepare for college after

completing a vocational course, it will only be necessary to complete enough units in non-vocational course to make the required 15 units. Such additional units must include fundamental branches. See Vocational Agriculture, Home Economics and Trades.

While other work is being carried, two lessons per week in piano, voice, violin or wind instruments may be taken, for which a nominal charge is made. Students in the department have full privileges of College library, dormitories, laboratories, shops, and many College activities, as well as the free services of the official College physician. Credit of one-half of hours is allowed for physical training, and other practice hours.

Recitation periods are fifty minutes long. Penmanship must be taken if the student is not proficient. Credit examinations are given in all branches. Grades brought from approved high schools are accepted. Work done in non-accredited high schools is received on statement by Faculty Committee on Non-Accredited Schools.

Full Freshman standing in College is obtained upon completion of 15 units (conditional with 14 units). Besides required branches, the compliment of units comprises such subjects as will strengthen the student for the College course in view, or for teacher's certificate requirements. A number of practical branches are offered to fill out the 15 units. These are found in secretarial training of commerce and marketing and vocational courses.

Entrance to the Secondary School requires: First, that applicant be 16 years of age, if residing where a four-year high school is maintained, or 14 years of age, if no such high school is maintained at his home. Second, that a diploma of graduation, or certificate of promotion from the common scholos of the State be presented, and that at least 4 units of high school work have been completed.

FIRST YEAR

(Not given during year 1920-21.)

SECOND YEAR

FIRST SEMESTER

	Cl.	Pr.
English 21	4	
Plane Geometry 21	5	
Ancient History 23	5	
Woodwork 21		4
and		
Mechanical Drawing 21		2
or		
**D. A. 21, Sewing (girls)		4
Vocal Music 21 (Teachers)	1	1
Physical Education 21		3

SECOND SEMESTER

	Cl.	Pr.
English 22	4	
Plane Geometry 22	5	
Ancient History 24	5	
Woodwork 22		4
or		
Forge 22 (boys)		4
**D. A. 22, Sewing (girls)		6
Vocal Music 22 (Teacher's)	1	1
Physical Education 22		3

THIRD YEAR

FIRST SEMESTER	Cl.	Pr.
English 31	4	
Physics 31 (S. and L., Engr.)	3	4
Modern History 35	5	
Latin, French or Spanish 31 (S. and L.)	4	
Algebra 31	4	
or		
**D. S. 31 Food		6
Physical Education 31		3

SECOND SEMESTER	Cl.	Pr.
English 32	4	
Physics 32 (S. and L., Engr)	3	4
Modern History 36	5	
Latin, French or Spanish 32 (S. and L.)	4	
Algebra 34 (Engr.)	4	
Solid Geometry 32	4	
or		
**D. S. 32, Food		4
Physical Education 32		3

FOURTH YEAR

FIRST SEMESTER	Cl.	Pr.
American History 43	4	
Latin 101, French or Spanish 201 (Engr.)	3	
Education 103 (Teachers)	3	
Arithmetic 41 (Engr.)	5	
Oklahoma History and Civics 41	1	
American Government 45	4	

SECOND SEMESTER	Cl.	Pr.
American History 44	4	
Latin 102, French or Spanish 201 Engr.)	3	
Education 104 (Teachers)	3	
Education 106 (Teachers)	3	
Geography 42 (Teachers)	3	

ELECTIVES

FIRST SEMESTER	Cl.	Pr.
General Science 11	2	4
Arithmetic 41	5	
Algebra 31	4	
Woodwork 21		4
and		
Mechanical Drawing 21		2
Typewriting	5	or 10
Shorthand		
Music—Piano, Voice, Violin, etc		
College or Vocational Courses Approved		
Languages 31, 101 201		
*Agriculture		

SECOND SEMESTER	Cl.	Pr.
General Science 12	2	4
Geography 42	3	
Solid Geometry 32	4	
Woodwork 22		4
Forge 22		4
Typewriting		
Shorthand		
Music—Piano, Voice, Violin, etc.		
College or Vocational Courses Approved		
Languages 32, 102, 202		
A. I. G. 34	4	
Agriculture		

*In Fall Semester.—Farm Crops 11, Livestock 11, Dairy 21, Farm Crops 21, Fruit-Growing 21. In Spring Semester.—Soils 12, Vegetable Gardening 12, Livestock 22, Farm Accounts and Management 22, Animal Diseases 22, Machinery 22.

**Four semesters of home economics are required of all girls. These may be: (1) D. A. 21, 22, and D. S. 31, 32, or (2) four selected from vocational home economics course, as approved by Dean of School of Home Economics and principal of Secondary School. Also additional courses may be taken in vocational home economics course.

SUBJECTS

EDUCATION 103. Class 3 hours.

School hygiene and management. For teachers.

EDUCATION 104. Class 3 hours.

Elementary Psychology. For teachers.

EDUCATION 106. Class 3 hours.

Methods of teaching the common branches. For teachers.

All required for two-year State certificate.

These constitute the required one year in pedagogy for two-year State certificate, and are open to Senior Preparatory students only. For description, see School of Education in College.

ENGLISH 21-22. Class 4 hours.

Composition, theory and practice. Three or more classics each semester. Oral interpretation. Same as in courses for vocational agriculture, trades and home economics.

ENGLISH 31-32. Class 4 hours.

English 31 is good course in English grammar; English 32 comprises classics and composition; English 33 in Summer Session, the same credit. Same classics and composition.

ANCIENT HISTORY 23-24. Class 5 hours.

Oriental, Egyptian, Grecian, Roman and Medieval Europe to 1789. Making of historical maps and notebooks required.

MODERN HISTORY 35-36. Class 5 hours.

From beginning of French Revolution to date. Completes a two-year course of general history, which is accepted on a teacher's certificate. Maps and notes.

OKLAHOMA HISTORY AND CIVICS 41. Class 1 hour.

The unique story of Indian consolidation and settlement of Indian Territory and Oklahoma. Survey of State in education, industry and government. Many maps and supplementary matter used.

AMERICAN HISTORY 43-44. Class 4 hours.

High school history. Gives grade on teacher's certificate.

AMERICAN GOVERNMENT 45. Class 4 hours.

Prepares to teach in common schools. Pedagogy of subject given. Course composed of two parts, how the Government operates, and how it is organized.

ALGEBRA 31. Class 4 hours.

Requires algebra 1 unit.
Alternate with D. S. 31 (Foods).

ALGEBRA 34. Class 4 hours.

For engineernig course.

PLANE GEOMETRY 21-22. Class 5 hours.

Text: "Plane Geometry", Stone and Millis. Parts I and II for Courses 21 and 22, respectively.

ARITHMETIC 41. Class 5 hours. Credit ½ unit.

Required of engineers.
See Manual Training course, College.

WOODWORK OR MANUAL TRAINING. Shop 4 hours.

Course 21 is mostly turning; 22 is cabinetmaking. When personal proficiency is acquired, many useful articles for the home are made. Courses 21, 22 apply upon the manual training requirements for teacher's certificate course in two years. See Manual Training Course, College.

FORGE 22. Shop 4 hours.

First work in blacksmithing. Iron and steel . Drawing, upsetting, welding and tempering. (Same as 12. See Vocational Agriculture.)

VOCAL MUSIC 21-22. 2 hours.

Essential work for teachers. 21 and 22 are prerequisite for Public School Music. (See College.)

PHYSICS 31. Class 3 hours, laboratory 4 hours.

Required of all students who expect to enter regular courses in Engineering, Science and Literature and Agriculture.
Prerequisite: Algebra 1 unit; Plane Geom. 21, 22.
Covers mechanics and heat.
Text: "Physics With Applications", Carhart and Chute.

PHYSICS 32. Class 3 hours, laboratory 4 hours.

Required of all students who expect to enter regular courses in Engineering, Agriculture and Science and Literature.

Prerequisite: Physics 31 and its prerequisite:

Covers electricity, magnetism and light.

Text: "Physics With Applications", Carhart and Chute.

GEOGRAPHY 42. Class 3 hours.

Mostly commercial geography.

Required for teachers.

GENERAL SCIENCE 11, 12, 21, 22. Class 2 hours, laboratory 4 hours.

In vocational agriculture and trades, courses 11, 12. In vocational home economics, Courses 21, 22. Courses 11 and 12 equivalent to 21 and 22. Main part of content of courses the same for three vocations. Elementary physics, chemistry and biology. Unity of matter psychological rather than logical—related to life. Limited to applied science as much as possible. To be matured as outline courses. Differentiation for vocations to be developed as justified by laboratory equipment.

SPANISH 31-32. Class 4 hours. Credit ½ unit each.

Essentials of Spanish grammar. Reading of easy prose. Conversation and careful training in pronunciation.

Text: "A Brief Spanish Grammar", Ingraham-Edgren; "Elementary Spanish-American Reader", Berge-Soler and Hathaway.

FRENCH 31-32. Class 4 hours. Credit ½ unit each.

Essentials of French grammar, with the more common irregular verbs. Reading of about one hundred pages of easy prose. Careful training in pronunciation.

Text: Fraser and Squair's grammar; Gruce's "Lectures Faciles"; Allen and Schoell's "French Life".

LATIN 31-32. Class 4 hours. Credit ½ unit each.

Drill on the essentials of Latin grammar, acquiring of vocabulary, reading stories from Roman history, anecdotes and fables.

Text: (1) "Latin Lessons", Smith; (2) "Gradatim".

DOMESTIC ART 21-22 (Sewing). Laboratory 4 hours first semester, 6 hours second semester.

Plain stitches applied to various articles, as towels, sewing-aprons, etc. Patching and darning. Machine sewing. Seams. Simple undergarments. Study of textiles and fibers used.

DOMESTIC SCIENCE 31. Laboratory 6 hours first semester; D. S. 32, laboratory 4 hours second semester.

Required of all girls, except as by note under formulated course (above). Contents, foods and cookery.

THE DEPARTMENT OF MUSIC

BOHUMIL MAKOVSKY, *Director*
Instructor in Brass and Reed Instruments and Band Conductor
JANE PORTER SLOSS, *Instructor in Piano*
C. FARNEWORTH, *Instructor in Piano, and History of Music*
KATE VERMILLION, *Instructor in Piano and Harmony*
VIVIAN BRENGLE, *Instructor in Piano and Theory of Music*
MAIZIE RUE BRIDGES
Instructor in Voice Culture and Public School Music, Director of Ladies' Glee Club
VIRGIL SIMMONS
Instructor in Violin and Director of College Orchestra
JOSEPH JULIAN PATTERSON, *Director of Men's Glee Club*

The Department of Music forms an integral part of the College, and is under the same government and discipline. But its immediate interests and specific work are under the supervision of the Director of the Department of Music. The purpose of the department is to provide opportunities for obtaining a good musical education under the auspices of the Oklahoma A. and M. College. The general plan of the work is the same as that of the best American schools of music. These courses of study are thorough and comprehensive, and the methods of instruction are along modern lines. The aim is to teach music, not only as an accomplishment, but also as an aid in the development of the highest type of manhood and womanhood. The intimate connection of the department with the other departments of the College presents to the students opportunities of pursuing musical and literary studies at the same time. And such a combination is strongly recommended from an educational point of view. The ultimate aim is to train for life, to use the art of music as a means of intellectual, aesthetic and moral culture.

Instruction is offered in piano, voice culture, violin, brass and reed instruments, and public school music; also in theoretical courses, including harmony, appreciation, history and theory of music, instrumentation and transposition, era-training and conducting.

Public performances being part of the course of study in a practical subject, all students are required to participate in a program when sufficiently prepared. Students, who by reason of deficient musical ability, inattention or other valid reason, fail to make satisfactory progress, may be dropped from the classes.

Practical courses include regular attendance in either Men's Glee Club, Ladies' Glee Club, Choral Society, orchestra and band, unless a student is excused by the Director of Music. The time required for the completion of the regular certificate courses in music will depend upon the student's ability, daily practice and previous work in music. Students not wishing to complete a regular certificate course may select such branches as meet their requirements, provided they are prepared to pursue them profitably.

Most of the regular College courses will allow as much as 8 credits in music to be applied for graduation. Courses in music which may be applied, and the amount of credit to be given for each semester's work:

	Hours	Cr.
1 Piano	1	1
2 Voice	1	1
3 Violin	1	1
Wind Instrnments	1	1
5 Public School Music	2	2
6 Music Theory or Harmony	2	⅔
7 Choral Practice	2	⅔
8 Band or Orchestra, Junior or Senior	3	1

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CURRICULUM IN MUSIC

FIRST YEAR*

FIRST SEMESTER

	Hours		Cr.
Eng. 101	3		3
Foreign Language	3		3
Music, 1*a*, 2*a*, 3*a*, 4*a*, Piano, Voice Violin, Wind Instrument	2	(6)	4
Music 15, Public School Music	2		2
Music 5, Theory	2		2
Music 50, Harmony	2		2
Music 7, History of Music	2		2
Physical Education		(3)	
Military Science		(3)	

SECOND SEMESTER

	Hours		Cr.
Eng. 102	3		3
Foreign Language	3		3
Music 1*a*, 2*a*, 3*a*, 4*a*, Piano, Voice, Violin, Wind Instrument	2	(6)	4
Music 16, Public School Music	2		2
Music 6, Musical Forms	2		2
Music 51, Harmony	2		2
Music 8, History of Music	2		2
Physical Education		(3)	
Military Science		(3)	

SECOND YEAR

FIRST SEMESTER

	Hours		Cr.
Eng. 203	2		2
Foreign Language	3		3
Music 1*a*, 2*a*, 3*a*, 4*a*, Piano, Voice Violin, Wind Instrument	2	(6)	4
Music 52, Harmony	2		2
Music 100, Musical Pedagogy	2		2
Elective	3		3
Public Speaking 101	2		2
Military Science		(3)	

SECOND SEMESTER

	Hours		Cr.
Eng. 204	2		2
Foreign Language	3		3
Music 1*a*, 2*a*, 3*a*, 4*a*, Piano, Voice, Violni, Wind Instrument	2	(6)	4
Music 53, Harmony	2		2
Music 101, Theory of Teaching	2		2
Elective	3		3
Military Science		(3)	

THIRD YEAR

FIRST SEMESTER

	Hours		Cr.
Music 11, Counterpoint	2		2
Music 102, Practice of Teaching	2		2
Music 111, Appreciation	2		1
Music 105, Instrumentation	2		2
Music 1*a*, 2*a*, 3*a*, 4*a*, Piano, Voice, Violin, Wind Instrument	2	(6)	4
Elective	3		3
Practice in Conudcting	1		1
Music 14, Musical Analysis	2		2

SECOND SEMESTER

	Hours		Cr.
Music 12, Counterpoint	2		2
Music 103, Practice of Teaching	2		2
Music 112, Appreciation	2		1
Music 106, Instrumentation	2		2
Music 1*a*, 2*a*, 3*a*, 4*a*, Piano, Voice, Violin, Wind Instrument	2	(6)	4
Elective	3		3
Recital	1		1

APPLIED MUSIC—PIANO

The technical work and compositions required for certificate of music in piano:

FIRST YEAR

Heller Studies, Op. 47, 46 and 45.
Czerney Etudes, Op. 299.
Haydn, Sonata in D major.
Beethoven, Variations and Easier Sonatas.
Mozart, Sonatas in C major.
Ph. Em. Bach, Solfeggietto.
Scharwenka, Op. 62.
Shumann, Op. 68.
Pieces by modern composers.

SECOND YEAR

Czerney, Op. 299, 740.
Low, Octave Studies, Op. 281.
Krause, Trill Studies, Op. 2.
Cramer-Bulow, Studies.
Bach, Hwo-Part Inventions.
Haydn, Sonatas.
Mozart, Sonatas.
Beethoven, Sonata, Op. 14, No. 2.
Schubert, Impromptus in E*b* and A*b*.
Mendelsshon, Songs Without Words.
Schumann, Scenes from Childhood, Forest Scenes.
Chopin, Easier Mazurkas, Waltzes, Preludes.
Grieg, Butterfly, Lyric Pieces.
Karganoff, Seven Miniatures.
Moskowski, Valse, Op. 17.

THIRD YEAR

Clementi-Tausig, Gradus ad Parnussum.
Kullak, School of Octaves.
Bach, Three-Part Inventions.
Bach. Preludes and Fugues.
Beethoven, Sonata, Op. 31, No. 2; Op. 27, No. 2, or Op. 38.
Schubert-Liszt, "Hark, Hark, the Lark".
Mende ssohn, Scherzo in E minor.
Chopin, Etudes, Nocturnes, Polonaise in A*b*, Ballade in A*b*.
Schumann, Novellette in F major.
Papillons' Romance in F sharp.
Liszt, Consolation in A*b*.
Grieg, Wedding Day at Troldhaugen; Sonata in E minor, Op. 7.
Tschaikowsky, June, Op. 37, No. 6; Troika en Traineaux.
Sibelius, Romance in D*b*.
Schutt, A la Bien Aime.
Rachmaninoff, Prelude in C minor.

Out of the above named list of compositions a program lasting at least one hour must be prepared, committed to memory and performed in public.

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ENTRANCE REQUIREMENTS FOR VOICE

Students desirous of studying voice as a major subject must have completed at least one year of piano or one year of sight-singing.

VOICE CULTURE

The aim of our instruction is to secure a free, natural tone production throughout all the registers. Correct use of the breath, intonation, legato, accent, embellishments, phrasing and enunciation are the leading features of technical drill. Above all, the highest aim of art is an intelligent and refined interpretation of the words of music, maintenance and development of the personality of the student.

Such exercises, studies and songs are selected as are adapted to the capabilities of the individual student.

Candidates for certificate in voice must perform creditably in public from memory a program of the difficulty of the program given below:

"My Heart Ever Faithful" ..... *Bach*
"Songs My Mother Taught Me" ..... *Dvorak*
"Ave Marie" ..... *Gounod*
"From the Land of the Sky-Blue Water" ..... *Caduian*
"Spirit Flower" ..... *Campbell-Tipton*
"With Verdure Clad" (from "Creation") ..... *Haydn*
"Ma Curly-Headed Babby" ..... *Clutsam*
"Caro Nome Che Il Mio Cor" ..... *Verdi*
"The Woodpigeon" ..... *Lehman*
"The Starling" ..... *Lehman*
"The Yellowhammer" ..... *Lehman*
"Recitative and aria of Lia" ("L'Enfant Prodigue") ..... *Debussy*

VIOLIN

Entrance to this course depends on the ability of the student. Since some students are more proficient than others, less work needs be done.

Technical work required for the certificate of music in violin:

FIRST YEAR

Kelly, First Studies.
Wohlfahrt, Op. 45.
Kayser, Book I.
Sevcik, Op. 2, Book I.
Sevcik, Op. 6, Book V.
Wohlfahrt, Op. 45, Book II.
Kayser, Book XI.
Sevcik, Op. 6, Books VI, VII.
Sevcik, Op. 1, Book I.
Sevcik, Op. 2, Book II.
Mittell, Popular Graded Course.
Lehman, 25 pieces in the first position.
Sitt, Op. 73.
Mittell, Graded Course, Book II.
Dancle, Op. 123, Melodious Studies.
Dvorak, Sontaina.
Dancla, Airs Varies.
Beriot, Op. 100, Scene de Ballet.
Accolay, Concerto in A minor.

SECOND YEAR

Mazas, Book I.
Sevcik, Op. 1, Book II.
Sevcik, Op. 8, Shifting the Position.
Sevcik, Op. 7, Book II.
Sevcik, Op. 9, Double Stops.
Kreutzer.
Sevcik, Op. 1, Book III.
Sevcik, Op. 2, Book III.
Rode, Concerto No. 6.
Viotti, Concerto No. 23.
Mozart, Sonatas.
De Beriot, Air Varie.
De Beriot, VI, IX (Concerto).
Spohr, Concerto No. 2.
Wieniawski, Kniawiak.
Wieuxtemps, Regrets.
Tschaiwoksky, Melodie.

THIRD YEAR

Dancla, Op. 73.
Dont Gradues et parnasum.
Alard, Op. 10.
Nazas, Book III.
Bach, Sonatas for Violin Alone (at least two).
Bruch, Concerto in G minor.
Mendelssohn, Concerto in E minor.
Wieuxtemps, Concerto in D minor.
Saint Saens, Rondo Capriccioso.
Ernst, Hungarian Airs.
Lipinski, Concerto Militaire.
Beehtoven, Concerto.
Paganini, Noise Fantasie.
Bach's Air.
Sarasate, Zigeunerweisen.

Out of the above named list of compositions a program lasting at least one hour must be prepared, committed to memory and performed in public.

DEPARTMENT OF BAND INSTRUMENTS

Brass Instruments.—The course in brass instruments develops a correct breath control, as used by all best artists; a scientifically formed embouchure, good attack and a round, full tone. At first the pupil is asked to pay considerable attention to tone studies, lip drills and articulation exercises, from authors selected to best fit the

pupil's need. Easy solo and duet pieces are introduced from time to time. A study of scales, awkward skips and slurrings is next begun, leading toward velocity studies, examples in phrasing, single and double-tonguing, studies in transposition, pieces of the variation type, etc.

Reed Instruments.—This department also offers artistic work in clarinet and saxophone. In general the outlines for brass instruments equally applies, excepting that the nature of the instruments cause some points of variance.

The College Band.—This organization is directed by the instructors in this department, and is governed by the rules of the Military Department. Gives one concert a year at College Auditorium, which is followed with about a ten-day concert tour over the State. The band holds an important relation to College life by arousing school spirit playing at the football and baseball games, track meets, and at other events. In addition, students have many opportunities for solo work in the various literary societies.

PUBLIC SCHOOL MUSIC

In public schools, music has taken a very important place, and there is a growing demand for teachers who are equipped and capable of directing community music, as well as the work in the grades or high school.

Credit for work in this subject at some college or State normal school should be given, but such credit should be claimed before entering the Senior year.

This course is carefully classified for each of the grades in the public schools, the work being outlined to develop the vocal ability and musical education of the pupils to suit the particular condition of the mind and the voice of the child at the average age in each grade. Advanced work is given for those desiring special preparation. This outline is somewhat as follows:

Rote songs for little folks. Study of the "staff", "notes", scale". Location of "do", or the keynote, in nine different keys. Sight-reading and singing, by syllable and by letter. Much attention given to tone quality and rhythm. Complete analysis of songs—as to key signature, meter signature, tempo signs, marks of expression, the different values of notes used, etc. Written work from oral dictation of tones, syllables or letters. Written work from dictation of rhythm. Transposition of songs into different keys. Special practice in music-class conducting. Singing at sight, rounds, and two, three and four-part songs. Thorough practice writing and singing major, minor and chromatic scales. "Spelling" and "pronouncing" different triads or chords. A little study of the elements of harmony.

OTHER DEPARTMENTS

DEPARTMENT OF PHYSICAL EDUCATION FOR MEN

E. C. GALLAGHER, *Professor of Physical Education*
F. A. MELTON, *Assistant*
J. E. PIXLEE, *Athletic Director*
H. D. SACKETT, *Baseball Coach*

Unless a sound mind is housed in a sound body, it will not be of its greatest value to the owner. The Oklahoma Agricultural and Mechanical College aims to create and maintain a vigorous state of health in every student in the College, and the work offered is so given that it meets the individual needs. It strives to keep the student body in the best possible physical condition for and during its college course, and to lay a foundation for proper living and care of the body.

The Men's Gymnasium is a new, modern college building. It has been built less than one year, and was built along the latest and most modern lines of gymnasium construction. The main floor is 85×120 feet, and is equipped with a running track and all the regular light and heavy apparatus. The main locker-room is the same size of the main floor, and is equipped with steel combination lockers of standard make. Additional locker-rooms for Faculty, varsity and visiting teams adjoin the shower-room. The main shower-room is designed to care for thirty individuals at one time, and hot and cold water are supplied in any quantity. In addition to the gymnasium proper, there is one of the best equipped and most sanitary swimming pools anywhere to be found. The water is kept at the correct temperature, and filtration and treatment of the water is going on constantly. Tests from samples of pool water show that after two months of use the water was as yet pure.

Every student in the College is expected to do some work to keep himself physically fit.

Regular gymnasium work is required of all Freshmen, Preparatory, Business and Vocational Students in Agriculture. Credit is

given for this work, and applies toward graduation from their respective courses.

Athletics play an important part in the work, and the Oklahoma Agricultural and Mechanical College has one of the best fields in the State. A movement is on foot to construct a field costing over $100,000.00, and work is already begun.

Each student in the men's department must provide himself with a gymnasium suit so that there can be a complete change of clothing while taking physical education work. This suit consists of a white, sleeveless jersey, white running pants, jockey strap and rubber-soled shoes.

SUBJECTS

PHYSICAL EXAMINATION—PRELIMINARY

A thorough physical examination is required of all entering students. This examination consists of measurements, strength tests, examination of the eyes, ears, nose, throat, lungs, heart and other vital organs, and special stress is laid upon physical deformities and inequalities. These defects the pointed out to the student and exercises to correct them are prescribed. When necessary, spcial attention and advice are given to the student. An examination is taken at the beginning and at the end of the first year, and at the end of each year after that.

A gymnasium handbook containing chapters on personal hygiene, diet, exercise, prescription, injuries, and an anthropometric table is given to each student, who is required to plat his measurements and, upon completion of the gymnasium course, the book becomes his property.

101 PHYSICAL TRAINING (first semester).

Required of the Freshmen of the College. The work of the Freshman class in this course consists of games, athletic dancing, boxing, wrestling and mass drills, with and without hand apparatus. Graded, systematic work on all apparatus, tumbling and indoor trackwork. Part of the work will consist of lectures on physical educational subjects. Three times a week. Credit given. Required for graduation.

102 PHYSICAL TRAINING (second semester).

Required of the Freshmen of the College. Advanced work on apparatus, tumbling, athletic dancing, games and drills. The latter portion of the semester will be devoted exclusively to work out-of-doors, with emphasis on track and field athletics. Lectures on physical educational subjects. Three times a week. Credit given. Required for graduation.

403 PHYSICAL TRAINING (first semester). 2 hours each week.

Senior and Junior elective.

A course in the theory of coaching for four major sports of college athletics. This work includes football and basketball.

404 PHYSICAL TRAINING (second semester). 2 hours each week.

Continuation of Course 403.

This semester's work includes baseball, and track and field athletics.

No student admitted to this course without the consent of the Physical Director.

501 PHYSICAL TRAINING (first semester). 3 times a week.

Required of students in the business class.

Similar to Course 101, but less advanced. Mass drills in class and apparatus work of the heavier type. Games, mat exercises, and lectures on physical education.

Credit given. Required.

502 PHYSICAL TRAINING (second semester). 3 times a week.

Continuation of the work begun in Course 501, with basketball, and track and field work in the spring. Lectures on physical education.

Credit given. Required for graduation.

21, 22, 31, 32 PHYSICAL TRAINING.

Complete course given under the Secondary School.

701-702 PHYSICAL TRAINING.

A. Cross-country running during the fall and spring. Those students desiring to do so may susbtitute a certain amount of cross-country running for the regular gymnasium work.

B. Wrestling.—A class in wrestling, in which all of the holds, breaks and counters are given, is formed. A student may substitute one hour's work a week of his regular gymnasium work. One hour per week.

C. Boxing.—Class in boxing, in which all of the blows, parries, guards and counters are given, is formed. Students may substitute one hour's work in boxing for one hour of regular gymnasium work. One hour per week.

D. Class in Fencing.—Open only to upper-classmen, with consent of the Director.

E. Special Class.—A special class is formed for those who, on account of deformities, are unable to take the regular work of the department. The work of this class is suited to the needs of the individuals.

F. Individual corrective work for all students who show in their examination the need of such work. The idea of this work is to correct deformities so that the student may get the maximum value from the regular classwork.

G. A class is organized and maintained for Sophomore, Junior and Senior students. Meets twice a week. This work is optional with the students.

H. Advanced Gymnastic Class.—Open to all students. A special class is formed for students who desire to do advanced work on the horse, parallel bars, horizontal bar, flying rings, mats, tumbling and club-swinging. This comprises the regular gymnasium team for exhibition purposes. Three hours per week.

I. A swimming class will be organized for those desiring to learn to swim, and a second special class will be organized for more proficient swimmers who wish to become experts in swimming and fancy diving. Credit will be given for this work.

ATHLETICS

Teams are now maintained in football, baseball, basketball, track and field athletics, tennis, wrestling, gymnastic work. The above forms of athletics are now recognized by the Southwest Conference, and the College gives letters to those complying with the requirements.

DEPARTMENT OF PHYSICAL EDUCATION FOR WOMEN

ANNA MILLER, *Professor*
MARGARET UNSER, *Instructor*

The gymnasium for women, located in the Woman's Building, is an unobstructed room 32×63 feet, and is equipped with all of the modern gymnasium apparatus. There is a locker and dressing-room in connection supplied with a large number of steel lockers. There are also shower baths. In the rear of the building are the women's tennis courts.

A regular costume is required. In orde rthat these may be uniform in pattern and color, they are ordered by the College. The cost of the suit, including shoes, is about $6.00.

At the beginning of the first semester each young women is given a careful examination. Personal history, measurements, deformities, are taken and recorded, with an examination of the vital organs. This examination is repeated during the second semester and comparison made at both examinations with the average. Suggestions and prescriptions suited to the needs of the individual are based upon this examination.

Physical training is prescribed for all Freshman, Sophomore and Businss girls, including special students, throughout the College year, three periods a week.

The prescribed courses are designed to secure a high degree of organic power, harmonious physical development, and a reasonable degree of skill and grace.

SUBJECTS

101-102 Three hours per week. Credit 1 hour.

Required of members of the Freshman class and Business class.

The work of these classes consists of floorwork, emphasizing carriage and coordination of muscles. Movements with apparatus, progressive back and abdominal evercises are given. Plays, games, rhythms and folk dancing form an important feature of the work.

103-104 Credit 1 hour.

Required of members of the Sophomore class.

This course consists largely of folk and national dances, emphasizing the characteristics of the various dances with reltaion to their respective nations. Folk games and plays, exercises of balance and muscular tension, and rythms form an important part of the work.

105-106-107-108.

Optional and elective for Junior and Senior girls in the Schools of Science and Literature, Education and Home Economics.

A. PLAYS AND GAMES (first semester). Credit 1.

In this course the theory of plays and games will be studied. It is also the purpose to provide explanation of and practice in a considerable number and variety of playground games; dramatic games; traditional games and song-plays; games of imitation, gesture, choosing and catching; games which appeal to the young by the stirring energy of their movement and their imaginative pantomime. Studies are made of children's games from all parts of the world, and of the simplest dances of primitive people and of the folk of Europe, or

ADVANCED FOLK DANCING (first semester). Credit 1.

This course consists of the more advanced folk and national dances and ring games suitable for school festivals and pageants. Festivals and pageants are taken up, the elements in each discussed, and outline for each suggested. Some time also is devoted to pantomime, its value and possibilities.

B. THEORY OF PHYSICAL EDUCATION (second semester). Credit 1.

This is a continuation of the plays and games, but the following will also be considered: History and development of physical education; growth and development of the child; personal hygiene; how to observe and criticise the work of pupils, and plan and arrange lessons. This course will also include methods and exercises used for corrective and therapeutic purposes. A general treatment of massage is given. In specific cases, insufficient osseous development, fractures, dislocations, sprains, muscular rheumatism, colds, insufficient respiratory power and neuralgia headache are considered. Or

ADVANCED FOLK DANCING (second semester. Credit 1.

This is a continuation of the first semester's work. The history of dancing si more thoroughly studied, from the primitive dances to those of the Seventeenth and Eighteenth Centuries. The relation of music and dancing is taken up, and a simple system of rhythm is added.

101 PERSONAL HYGIENE. Credit 1.

This course considers health in its social and economic aspects, and presents personal hygiene as the study by means of which health and efficiency are improved and conserved; facts and principles relating to the body's construction and function which may strengthen the argument in favor of hygienic living; imporvement of health and prevention of disease.

CORRECTIVE GYMNASTICS.

For those unable to take the work of the regular required courses, this course will be substituted. Hours to suit.

ATHLETICS.

A. Basketball.—Each class has a basketball team, and an inter-class schedule is played.

B. Baseball, Volleyball, Field Hockey and Cross-Country Walking.—Open to all classes during the months of October, April and May.

C. Tennis.—Tennis is played on the College courts during favorable weather. A tennis club is formed which is under the direction of the Girls' Athletic Association. This club is open to all girls of the College. The dues are 50 cents per year.

D. The English Folk Dance Society.—This society, under the auspices of the Girls' Athletic Association, was formed to further the popularity of English folk dances and songs. Meetings are held once a month in the Girls' Gymnasium. It is the ambition of the society to become an authorized branch of the English Folk Dance Society of England.

E. May Festival Dances.—For the May Festival each year, the Girls' Athletic Association gives a May pole dance, composed of the rhythmical plays and games taught in the gymnasium throughout the school year.

DEPARTMENT OF MILITARY SCIENCE AND TACTICS

This institution, being one of the beneficiaries of the Act of Congress of 1862, instruction in military tactics is made compulsory.

The department is in charge of an officer of the United States Army, detailed by the War Department, as professor of military science and tactics.

Military discipline is exercised with firmness, kindness and justice. It tends to cultivate habits of punctuality, alertness and the sense of personal responsibility. It also teaches attention to detail, cleanliness of person and of dress, a high sense of honor and respect for those in authority.

It helps the student to prepare himself the better for any position in life, because employers like to find men who are imbued with the idea of doing exactly as they are instructed by one who is authorized to direct them, and who have been trained to exercise quick yet sound judgment in any emergency that arises concerning which they have no definite instructions. These qualities are thoroughly inculcated in any person by a military training, such as the College endeavors to give them. In addition, the drills give a graceful carriage to the student, assist in the promotion of the health of the individual, and are an added benefit to the gymnasium work of the College.

Former Presdient Taft, on February 25, 1911, following a review of 1,400 cadets at the University of Illinois, wrote as follows to the President of that institution: "We are all in favor of college athletics, but one of the defects of athletics is the tendency to confine work to those who are naturally best adapted to it, while the great student body takes no active part in the games. This is not true of military training that comes from the organization and maintenance of a school regiment."

The course of instruction is made to conform strictly to the provisions of Special Regulations No. 44, War Department, 1919, and General Order 49, War Department, Series of 1916. In compliance with the requirements of these orders, the course is both practical and theoretical, and will be given as follows:

PRACTICAL

1. Infantry Drill.

2. Advance Guards, Rear Guards, Outposts, Messages and Orders, Signaling.

3. Marches, Map-Drawing and Entrenchments.

4. Ceremonies of Review, Inspection, Parades, Escort of the Colors, and Guard-Mounting.

5. Nomenclature of the Rifle, Sighting Drills, Position and Aiming Drills, and Deflection and Elevation Correction Drills.

6. Field Problems with Blank Ammunition.

7. Duties consistent with rank as cadet officers or non-commissioned officers in connection with the practical work and exercises.

8. Special courses in military spoken French are given in connection with this department.

All students not physcally disqualified are required to take the practical instruction during the entire preparatory course and in the collegiate course until the course has been completed. Hours drilled in the preparatory course count one-third.

During the first semester there will be three hours' drill per week, while the second semester will be devoted to two drills per week with one hour instruction in military science in the subjects as set forth in the following table:

Students who show aptitude for the military service are recommended for appoinmtent as second lieutenants in the Army. Positions in the Engineer Corps of the Army are open to certain students of the School of Engineering of the College. A list of students who have shown special ability in engineering is kept by the War Department in order to be able to locate good engineers in case of need. Graduates of the College are also selected for service in the Philipine Constabulary and are not required to take the mental examination if recommended by the College authorities.

RESERVE OFFICERS' TRAINING CORPS

By giving the above course in military science, this College is eligible, and has been designated by the War Department to maintain a Senior Division of the Training Corps for Reserve Officers. The primary object of this advanced training is to prepare young men to perform intelligently the duties of commissioned officers of the military forces of the United States, and it enables them to be thus trained with the least practicable interference with their civil careers.

The Reserve Officer's Training Corps is composed of all physically fit male students in the College, and consists of the basic and advanced courses.

The basic course is compulsory in the first two years of college attendance, and the advanced course is elective in the last two years of the College course.

During the first two years the United States pays part of the expense for the uniform, and furnishes arms and personal equipment. Those students enrolled in the advanced course receive commutation of subsistence at the rate of $12.00 per month for the remainder of the course, including one summer vacation, and are required to attend such summer camp as the Secretary of War may prescribe.

Railroad fare to and from camp is paid by the United States, and subsistence is furnished in kind instead of commutation.

Graduates from the Reserve Officers' Training Corps may be commissioned in the Officers' Reserve Corps in the lowest grade, i. e., as second lieutenants.

The primary object of the Reserve Officers' Training Corps is to train men to be efficient officers so that if the country should find a war on its hands the needed material for more efficient officers will be available.

Aside from this, the constant endeavor is to build up character, promote honor and true manhood, thereby making better citizens and inculcating that discipline which enables contact with the business world.

For, after all, discipline, or, rather, steadiness and respect for and interest in the work one is doing, is as necessary in business, the office or any trade or profession as in the army. Without this characteristic a man will not be able to stay long in one place, but will eventually become a "drifter" and a menace, more or less, to the community in which he happens to be.

Therefore the purpose of the Reserve Officers' Training Corps is to do all in its power to make upstanding men and the highest type of ciitzen, and at the same time train him to give the most intelligent service to his country in time of need.

Men who have had six months' training in the army will not be required to take any part of the course unless they so elect. Men who have served in the Student Army Training Corps will be given credit for the first year's training in the Reserve Officers Training Corps.

GENERAL COURSE IN R. O. T. C.

FRESHMAN YEAR

Organization.
Military Courtesy.
Discipline.
Drill.
Care and Handling of Arms and Equipment.
Small-Arms Firing.
Regulations.
Personal Hygiene.
Interior Guard Duty.
Minor Tactics.
Morale.
Physical Training.

SOPHOMORE YEAR

Organization.
Military Courtesy.
Discipline.
Drill.
Ceremonies.
Marching.
Interior Guard Duty.
Minor Tactics.
Physical Training.
Signaling.
Care and Handling of Arms and Equipment.
Small-Arms Firing.
Pistol Practice.
Rifle Practice.
Personal Hygiene.
First Aid
Sanitation.
Liaison for All Arms.
Topography.
Map-Reading.

JUNIOR YEAR

Camp Sanitation.
Care of Troops in the Field.
Minor Tactics.
Liaison for All Arms.
Topography.
Field Engineering.
Law
Common
Military.
Military Policy.

SENIOR YEAR

Minor Tactics.
Field Engineering.
Military Policy.
History.
Economics.
Hippology.
Topography.
Company Administration.
Military Law.
Courts-Martial.
Rules of Land Warfare.

Students entering the College are advised that they must get their uniforms through the College, and they will be required to deposit the full amount of the uniform (about $45.00) with the Registrar. The Government allowance will be paid to the student at the end of the school year. The College prescribes the uniform to be worn, and will not accept any uniform obtained from other sources.

Students are required to wear the uniform on the days that military instruction is held, and may wear them all the time if they so desire; but the uniform must be in good condition and able to pass inspection at all times. If it at any time is unsightly, dairty and worn, the student will be required to put it in the proper condition or buy a new one.

EQUIPMENT

The War Department has supplied the College with 600 U. S. magazine rifles, caliber .30, model of 1903, and 600 sets of latest model infantry equipment. Swords, targets, target supplies, engineering material; ammunition for all rifles and cleaning material are furnished to the College free of charge by the War Department.

ORGANIZATION

All young men of college grade are required to enroll in the Reserve Officers' Training Corps. Students below college grade will not be required to take military training.

Those who are entitled to be excused must at the time they enroll make a written application to be placed on the unassigned list. All students who are on the unassigned list will be excused from military duty.

The corps of cadets has been organized into a regiment consisting of a band, drum corps and three battalions of three companies each.

Each year the officers and first sergeant of the best drilled company will receive silver and bronze medals, and the three best drilled cadets in the best drilled company will receive a gold, silver and bronze medal in order of merit.

The beautiful Drummond cup will be awarded annually for individual excellence in the Reserve Officers' Training Corps.

Officers are selected from senior members of the Reserve Officers' Training Corps. Non-commissiond officers are selected from both the senior and junior divisions.

AGRICULTURAL EXPERIMENT STATION

HENRY G. KNIGHT, *Director*

The Agricultural Experiment Station was located at the A. and M. College at Stillwater in July, 1891, under a provision of an Act of Congress approved March 2, 1887, commonly known as the Hatch Act, and entitled "An Act to establish Agricultural Experiment Stations in connection with colleges established in the several States under the supervision of an Act approved July 2, 1862, and of Acts supplementary thereto". The objects of the Experiment Station are clearly set forth in the second section of the Act as follows:

> "That it shall be the object and duty of said Experiment Stations to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advintages of rotative cropping as pursued in a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and water; the chemical composition of manures, natural and artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of different kinds of foods for domestic animals; the scientific and economic questions in the production of butter and cheese; and such researches and experiments bearing directly on the agricultural industry in the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective States and Territories."

At the present time the Oklahoma Agricultural Experiment Station receives funds for its support from two sources, namely:

The Hatch and Adams appropriations are received from the Federal Government in amounts of $15,000.00 each per annum, as provided for by Act of Congress, March 2, 1887, and March 16, 1906, respectively. The Experiment Station also has use of certain State funds appropriated from the general College funds, and set aside by the State Board of Agriculture for maintenance and support of the Experiment Station. During the past fiscal year this latter fund was about $10,000.00. This does not include the cost of heating, lighting, janitor service and other items of general administrative expense. This makes a total of $40,000.00, which has been the amount received for the past two years.

Under the Federal law, the Adams fund must be spent strictly for original research of approved character, and may not be used for general administration, for printing or for farm demonstrations.

The Hatch appropriations may be used for general research, for general administration of the Station, and for printing. The State funds received through appropriation by the Board of Agriculture may be used for general maintenance purposes as well as research.

Two rather broad general divisions are recognized in the work of the Station. The one includes investigational work of an original nature of a character which satisfies the requirements of the Adams Act. This work is usually such that it covers a period of years, and of such nature that it seeks to discover underlying principles and truths which may have a bearing upon some phase of the science of agriculture. The studies to come in this general division must be exhaustive and results should be a distinct addition to the science of agriculture. All other work of a research nature, which may not necessarily be original, or of the highest type, which is carried on at the Experiment Station, is grouped in the second division. Many of the subjects of research are not designed to be exhaustive, but rather to answer many of the immediate questions which should be answered for the people of the State who are directly or indirectly interested in agriculture. Upon the other hand, investigations begun and classed in the second division many times develop to the point that they are placed in the first division.

At present the lines of investigation pursued include experiments in soils, crops and fruits; breeding of livestock; feeds and feeding; insect pests, economic insects; poultry and egg production and poultry-feeding; plant and animal parasites, plant and animal diseases, and their control and eradication; butter, cheese and ice cream manufacture, etc.

The investigations are designed especially to further the progress of agriculture in Oklahoma, with special reference to the soil and climatic conditions.

This very wide range of investigational and experimental work is of itself an educational feature of the College. Students have opportunities to study methods of attacking problems, and many of them are employed in the laboratories and experimental plats, where they may study problems at first hand.

Each year an annual report is published giving a resume of the work accomplished the past year. Short articles are often included. These reports become a valuable history of the work and progress of the Station.

The results obtained in the various lines of experiment work are

published in bulletins. In addition to the regular bulletins, giving the results of work, a series of popular publications known as circulars are issued from time to time as conditions would seem to warrant to be used by the extension service in distributing valuable information to the farmers.

A mailing list is maintained which numbers at the present about 17,000 names, principally of farmers, in various parts of the State. Any citizen of the State interested in agriculture may have the bulletins and other publications from the Station sent free on application to the Director of the Experiment Station asking to have his name placed upon the regular mailing list.

Such portions of the College farm, which comprises about 1,000 acres, as are needed for Experiment Station and research work, are set aside for this purpose; also such livestock as is needed for feeding experiments is utilized by the Station men. All the scientific laboratories of the College are available for research work, and many of the scientific departments of the institution are interested in carrying on different projects under the supervision of the Experiment Station officers.

THE EXTENSION DIVISION

JAMES A. WILSON, *Director*

During the war, the sole efforts of the Extension Division had been to increase the production of food to meet the war needs, and to aid the Government as much as possible in all war activities. Immediately on the signing of the armistice, November 11, 1918, the Extension Division began shaping its plans and policies to get back to its pre-war basis. The idea of greater production to meet the needs of the World War was at once supplanted by a broader policy, which included soil improvement, betterment of market conditions, roads, rural schools and churches, more effective organization work, and all lines tending to the improvement of rural conditions throughout the State.

All lines of extension activities in agriculture and home economics of the Agricultural and Mechanical College and United States Department of Agriculture are carried under the direction and general supervision of the Director of Extension. The heads of the various departments of the College are considered final authority on all subject matter problems. In addition to the Director, there is a supervisory force composed of an Assistant Director, Assistant Director of Home Demonstration Work, six disrtict agents for the men agents, two district and two assistant district agents for the women agents.

The work of the Extension Division is carried on under ten projects, as follows: Administration, printing and distribution, county agents, Boys' Club work, home demonstration agents and Girls' Club work, rural sanitation, Poultry Club work, Dairy work, rural engineering, and horticulture and gardening work.

At the close of the fiscal year, June 30, 1919, the war emergency fund, supplied by the Federal Government, was discontinued. While a supplementary extension fund was appropriated by Congress to take its place, the extension funds were not sufficient to carry as large a force as we had during the period of the war. At present

there are sixty-six county agents and thirty-eight home demonstration agents.

During the calendar year 1919 the men agents made 75,995 visits to the farmers, club members and others. They traveled 440,385 miles by auto, rail and team. They addressed 8,514 meetings at which the total approximate attendance was 382,689. They wrote 95,261, official letters, and prepared 5,200 circular letters, and sent out 182,349 copies of same, besides writing 2,381 articles for publication.

At the close of the fiscal year ending June 30, 1919, there were sixty-eight persons employed under the home demonstration project. This included fourteen agents employed for the canning season. There were forty-seven county home demonstration agents and seven members of the supervisory force with headquarters at Stillwater.

The home demonstration agents encouraged rural families to provide more and better food at low cost, encouraged club members to obtain a better education, enabled the girls and women on the farms to raise more and better poultry, thus increasing the State's meat supply, and increasing the family income. They endeavored to make life in rural communities more attractive, and through all these avenues to make better homemakers and thus better Oklahoma citizens. These agents supervise the Canning, Poultry and Better Bread Clubs for girls, and Home Demonstration Clubs for women.

During the calendar year ending June 30, 1919, the home demonstration agents and supervisory forces visited 23,958 demonstrators, club members and others, traveled 229 308 miles by rail, team and auto. They attended 9,494 public meetings with an attendance of 235,668. They wrote 42,694 official letters, and mailed 180,502 circular letters and bulletins. They held 37,953 consultations at their offices.

The total number of girls enrolled during 1919 was 14,301, and 1,800 women were enrolled in the Home Demonstration Clubs.

The women agents supervised the work of the Canning Club girls, who reported that they had produced 198,631 pounds of vegetables and canned 68,738 containers of the same, the total value of all products from one-tenth-acre gardens canned by club girls was $112,786.32.

The total number of articles of sewing made by club girls was 7,373. The total number of women enrolled as demonstrators was 2,390. The total number of containers of fruits, vegetables and pre-

serves canned by women under demonstrations was 830,160. The total value of all canned products was $327,902.60; 204,928 pounds of smoked meat, sausage and lard, valued at $39,237.00 were saved by women by demonstration methods. The total value of all work reported by women demonstrators was $809,619.58. The total number of Poultry Club members was 10,728, and the total profits of Poultry Club work was $40,944.48.

The Boys' Club work, as organized and supervised by the Extension Division of the A. and M. College, through the State Boys' Club Agent and his three assistants, has for its object the instruction of rural boys in approved methods of crop, fruit and livestock production, and in conserving and increasing soil fertility with the view of increasing the financial condition of the farmers of the future, thereby increasing the desire and providing the means for better homes, better schools, better social and moral conditions, and thereby insuring better citizenship.

Club activities supervised for boys for 1920 are as follows: Corn, Grain Sorghum (kafir, feterita, milo and darso), Cotton, Peanut, Wheat, Crop Rotation (three crops), Pig (breeding and fattening), Calf (breeding, fattening and dairy), Sheep, Poultry, Bee, Potato and Fruit.

The total number enrolled for the year 1919 was 28,027 regular club members. There were no enrollments of emergency members as in the previous year, this work having been a war measure.

The boy and girl club members form local organizations together, there being 821 such organizations during the past year, each organization having its regular officers and holding monthly meetings. Organizations of this character were perfected in every county in the State excepting four.

Club members made the following records:

Crop	Average Yield	Highest Yield
Corn	42 bu.	122½ bu.
Cotton	865 lbs.	2,445 lbs.
Grain sorghums	31 bu.	72 bu.
Peanuts	32 bu.	175 bu.
Wheat	19 bu.	32 bu.

AVERAGE PROFITS

Pig Club (breeding phase)	$ 145.40
Calf Club (breeding phase)	126.74
Sheep Club	54.84
Bee Club (one stand of bees)	19.00
Fruit Club (two trees)	14.00
Number of club boys exhibiting at township fairs	1,350

Value of premiums won	$ 3,495.65
Number of club boys exhibiting at county fairs	2,203
Value of premiums won	13,559.42
Number of club exhibits at state fairs	2,717
Value of premiums at state fair	7,085.00

Instructional work along club lines is carried on through the personal efforts of the county agents by means of club rallies, short courses and contests, the county, district and club agents cooperating, and by means of bulletins and circular letters.

ACCREDITED SCHOOLS

Students who have completed the course of study in accredited schools will be given credit at the A. and M. College according to the following schedule:

LIST 1

Graduates from the following schools will be accepted for 15 units credit:

Ada
Afton
Alex
Aline
Allen
Altus
Alva
Amber
Amorita
Anadarko
Antlers
Apache
Arapaho
Arcadia
Ardmore
Atoka
Bartlesville
Beaver
Beggs
Billings
Blackwell
Blair
Blanchard
Boswell
Boynton
Braman
Bristow
Britton
Broken Arrow
Broken Bow
Byars
Cache
Caddo
Calvin
Calumet
Canadian
Carmen
Carnegie
Carney
Carrier
Chandler
Checotah
Chelsea
Cherokee
Cheyenne
Chickasha
Academy, Oklahoma College for Women, Chickasha
Choctaw
Claremore
Cleo Springs
Cleveland
Clinton
Coalgate
Collinsville
Comanche
Commerce
Copan
Cordell
Covington
Coweta
Crescent
Cushing
Custer City
Davis
Deer Creek
Delaware
Dewey
Driftwood
Douglas
Drummond
Drumright
Duncan
Durant
Durant Presbyterian College for Women, Durant
Eldorado
Elk City
Elmore
El Reno
El Reno Sacred Heart Academy, El Reno
Enid
Erick
Phillips University Academy, Enid
Eufaula
Fairfax
Fairview
Forgan
Fort Cobb
Fort Gibson
Fort Towson
Francis
Frederick
Gage
Garber
Geary
Glenpool
Goltry
Grandfield
Granite
Grove
Guthrie
Guymon
Oklahoma Methodist University Academy, Guthrie
St. Joseph's Academy, Guthrie
Haileyville
Hammon
Hartshorne
Haskell
Headrick
Healdton
Heavener
Hennessey
Henryetta
Hillsdale
Hinton
Hitchcock
Hobart
Holdenville
Hollis
Hominy
Hooker

Hugo
Humphreys
Hunter
Hydro
Jefferson
Jenks
Jennings
Jet
Kaw City
Keota
Kiefer
Kingfisher
Kingfisher College Academy, Kingfisher
Kingston
Kiowa
Konawa
Lambert
Lamont
Laverne
Lawton
Leedey
Lehigh
Lenapah
Lexington
Lindsay
Locust Grove
Lone Wolf
Luther
McAlester
McLoud
McMan
Dundee School, Macomb
Madill
Mangum
Marietta
Mansville
Maysville
Marlow
Marshall
Maud
Medford
Miami
Milburn
Mill Creek
Minco
Mooreland
Morris
Mounds
Mountain View
Muldrow
Oklahoma School for the Blind, Muskogee
Muskogee
Nash
Newkirk
St. Francis' Academy, Newkirk
New Wilson
Ninnekah
Noble
Norman
Nowata
Oilton
Okeene
Okemah
Okfuskee County High School, Paden
Oklahoma City
Oklahoma Holiness College, Bethany
St. Mary's Academy, Oklahoma City
Okmulgee
Okmulgee St. A. P.
Oktaha
Pauls Valley
Pawhuska
Pawnee
Perkins
Perry
Picher
Ponca City
Pond Creek
Porum
Porter
Poteau
Prague
Preston
Pryor
Purcell
Putnam City
Quinton
Ralston
Ramona
Ravia
Ringling
Roff
Retrop
Rush Springs
Ryan
St. Mary's Academy, Sallisaw
Sand Springs
Sapulpa
Sayre
Seminole
Shamrock
Shattuck
Shawnee
Shawnee, C. U. of O.
Snyder
Spiro
Stigler
Stillwater
Stilwell
Stratford
Stroud
Stuart
Sulphur
Supply
Talala
Tecumseh
Temple
Texhoma
Texola
Thomas
Tishomingo
Tonkawa
Tulsa
Academy, Henry Kendall College, Tulsa
Tuttle
Tyrone
Verden
Vinita
Wagoner
Wainwright
Wakita
Wakita Consolidated District No. 1
Walter
Wanette
Wapanucka
Washington
Watonga
Waukomis
Waurika
Wayne
Weatherford
Welch
Weleetka
Westville
Wetumka
Wewoka
Wilburton
Woodville
Woodward
Wynnewood
Yale
Yukon

LIST 2

Graduates from the following schools will be accepted for 12 to 14½ units credit:

Avant
Bennington
Bluejacket
Bakchito
Bradley
Canton
Capron
Choteau
Cimarron C. H. B.
Colbert
Cologah
Conway-Brown
Dacoma
Dale
Dustin
Fletcher
Foyil
Glencoe
Greenfield
Harrah
Howe
Ingersol
Krebbs
Lawrance Friends' Academy, Gate
Loveland
Meridian
Mulhall
Mutual
Norge
Oklahoma City P. C. School
Owasso
Okarche
Paoli
Pocassett
Preston
Randlett
Reed
Rocky
Roosevelt
Sasakwa
Seiling
Sparks
Stonewall
St. Michael's Parochial
St. Joseph's, Bison
Tipton
Tupelo
Valliant
Vian
Vici
Wann
Wellston
Woodville

LIST 3

Graduates from the following schools will be given 8 to 11½ credits. Necessary work for additional credits may be taken in the Secondary School at the A. and M. College:

Alluive
Balko
Bearden
Bertrand-Wilkins
Berwyn
Big Cabin
Bigheart
Binger
Buffalo
Burlington
Byron
Calera
Cameron
Carter
Catoosa
Centralia
Coalton
Coyle
Crowder
Dale
Dale Valley Grove
Depew
Dewar
Edmond
Fillmore
Fitzhugh
Foraker
Gotebo
Gould
Kaw City
May
Mountain Park
Pittsburg
Quawpaw
Red Oak
Rosedale
Skedee
Spiro
State Center
Tahlequah
Terlton
Victory (P. O.) Altus
Willow
Wister
Wynona

LIST 4

Graduates from the following schools will be given 4 to 7½ credits, and will be expected to make up the remainder of the necessary credits in the Secondary School of the A. and M. College:

Bridge Creek
Center
Dillworth
Dougherty
Eram
Fargo
Gowan
Cracemont
Graham
Gray, Blue Mound
Indianola
Kenefic
Kremlin
Lenora
Liberty Consolidated
Lone Grove
Markham
Mead
Moore
Nelagony
Oakland
Ochelata
Peckham
Red Rock
Stover
Wyandotte

REGISTER OF STUDENTS

The classification of students is indicated by the following abbreviations:

Agri., School of Agriculture; V. A., Vocational Agriculture; M. E., Mechanical Engineering; C. E., Civil Engineering; E. E., Electrical Engineering; Arch., Architecture; Ch. E., Chemical Engineering; H. E., School of Home Economics; V. H. E., Vocational Home Economics; S. and L., School of Science and Literature; Edu., School of Education; V. E., Vocational Education; C. and M., School of Commerce and Marketing; V. M., School of Veterinary Medicine; Sec., Secondary School; Bus., Business; P. C. A., Practical Course in Agriculture; P. C. E., Practical Course in Engineering; S. S., Summer School; 1-2, first and second semester, respectively.

GRADUATE STUDENTS

Buffington, Edith, B. S., 1918	Stillwater
Burnham, Alice, B. S., 1919, SS-1-2	Stillwater
Cummnigs, Ina, B. S., 1919, SS-1	Stillwater
Darlow, Albert E., B. S., 1919, SS-2	Stillwater
Dunlavy, Henry, B. S., 1919, SS-2	Stillwater
Harrison, Mrs. Virginia, B. S., 1915	Stillwater
McCarrel, Fred, B. S., M. S., 1918, SS-1	Stillwater
Maroney, Hugh, B. S., 1917, SS-1	Stillwater
Mrs. H. W. Moorhouse, B. S., 1917	Stillwater
Oldham, Lo'a, B. S., 1919, SS-1-2	Stillwater
Poole, Grace, B. S., 1917, SS-1-2	Stillwater
Priest, Stella, B. S., 1912	Sabetha, Kansas
Sieglinger, Leona, B. S., 1919	Stillwater

UNDERGRADUATE STUDENTS

Abercrombie, Erma	Sec.	1-2	Cashion
Abernathy, Wm.	Sec.	1-2	Spur, Texas
Abshire, Edwin	Sec.	1	Eagle City
Adair, A'ton	Engr., Fr.	1-2	Lowery
Adair, Mrs. Florence	H. E., Fr.	1-2	Stillwater
Adair, Isaac	V. A.	1-2	Stillwater
Adams, Arles A.	V. A.	1-2	Hammon
Adams, Frank C.	V. A.	1-2	Newkirk
Adams, Georgia	Bus.	-2	Stillwater
Adams, Henry P.	Sec.	1-2	Carrier
Adams, Lee	Bus.	1	Booker
Adams, Paul G.	Agri., Fr.	1-2	Lucien
Agee, Joe	V. A.	1	Altus
Ahrberg, Fred W.	Agri., Jr.	1-2	Stillwater
Akers, Eleanor	Sec.	1-2	Stillwater
Akers, Evelyn	Sec.	SS-1-2	Stillwater
Akins, Nellie Pitzer	Sec.	SS-1-2	Stil'water
Albert, George	V. A.	1-2	Ada
Albin, Glenn	V. A.	1	Perry
Albright, R. H. G.	C. and M., Fr.	1-2	Sulphur
Alexander, Floyd	Bus.	-2	El Reno

Alfrey, Gertrude	V. H. E.	1-2	Shawnee
Alkire, Olive	Bus.	SS-1	Stroud
Allen, Crowder	Sec.	SS1-2	Bennington
Allen, Homer	Sec.	SS-1-2	Bennington
Allison, Athal	Bus.	2	Perkins
Allnutt, Alvin	C. and M., Fr.	-2	Stillwater
Allnutt, Garnett W.	C. and M., Fr.	1-2	Stillwater
Amos, S. C.	V. A.	1-2	Sallisaw
Anderson, Barbara	M. F., Soph.	1-2	Gotebo
Anderson, Andy	Edu., Sr.	1-2	Idabel
Anderson, Donald	Sec.	1-2	Gotebo
Anderson, Floyd L.	Sec.	1	Agra
Anderson, Nora	Sec.	2	Connerville
Anthis, James E.	Agri., Fr.	1-2	Muskogee
Anthony, May	Sec.	SS-1-2	Morrison
Armstrong, Doyle	V. A.	1	Lebanon
Armstrong, Ezra	Sec.	1-2	Panhandle, Texas
Armstrong, Gladys	Sec.	1-2	Panhandle, Texas
Arnold, Chas. W.	V. A.	2	Marlow
Arrington, Chas.	Ch. Engr., Jr.	1-2	Lindsay
Arrington, E. A.	Sec.	1-2	Lindsay
Ash, Dorothy	Sec.	1-2	Cleora
Ashbrook, Mary K.	H. E., Sr.	1	El Reno
Atkinson, Dick	Sec.	2	Hobart
Atkinson, Cressie	S. and L., Fr.	2	Hobart
Atkinson, John R.	C. and M., Fr.	1-2	Hobart
Atkinson, R. C.	E. E., Soph.	1-2	Stillwater
Atwood, Leta	Sec.	1-2	Canton
Atwood, Viola	Sec.	SS-1-2	Canton
Ault, Wayne	C. and M., Fr.	2	Blackwell
Auten, James	V. A.	1-2	Stonewall
Avara, James	V. A.	1-2	Alta
Avera, B. R.	V. A.	1-2	Stateline, Mississippi

Backhaus, Minnie	H. E., Fr.	1-2	Guthrie
Badgley, Reva	Sec.	SS-1-2	Canton
Badgley, Eva	Sec.	SS-1-2	Canton
Bagby, Edward	Engr., Fr.	1-2	Stillwater
Bagby, Virginia L.	S. and L., Fr.	1-2	Stillwater
Bagby, Ruth	Special	1	Stillwater
Bagwell, Marvin	Sec.	1	Wetumka
Bailey, Lucille	Edu., Fr.	1	Stillwater
Bailey, Warren	S. and L., Soph.	1-2	Snyder
Baird, Luther	Trades	1	Coalton
Baird, Ray	V. A.	1-2	Guthrie
Baker, Allen E.	Bus.	1-2	Broken Bow
Baker, Alpha I.	Sec.	2	Stillwater
Baker, Donald	Engr., Fr.	1-2	Wewoka
Baker, Dorothy	Bus.	1	Lamar, Missouri
Baker, Ora	Bus.	SS1	Stillwater
Baker, Oral	Engr., Fr.	1-2	Stillwater
Baker, Willard	Sec.	1	Stillwater
Bakhaus, Orville	C. and M., Fr.	2	Oklahoma
Baldwin, Bernice	H. E., Sr.	SS-1-2	Anadarko
Baldwin, Kenneth A.	M. E., Soph	1-2	Anadarko
Baldwin, Myrtie	Edu., Sr.	1	Anadarko
Balenseifen, Effie	Edu., Fr.	SS-1-2	Okeene
Ballagh, Will	Sec.	1	Kaw
Ballinger, Jean	Bus.	1-2	Marysville, Texas
Banks, Hugh L.	C. and M., Soph.	1-2	Hobart
Barber, Augustus	Sec.	1	Tulsa
Barber, Davis	Agri., Fr.	1-2	Haskell
Barnett, Luther	V. A.	2	Elmore
Barnhill, Lloyd	Sec.	1-2	Clinton
Barr, Maurine	Sec.	SS-1-2	Stillwater
Barrett, C. F.	S. and L., Fr.	1-2	Oklahoma
Barrett, Flavius	Engr., Fr.	1	Claremore
Barrett, S. M.	Engr., Fr.	1-2	Claremore
Barrier, Lola	Sec.	1-2	Ralston
Barron, Merle W.	Engr., Soph.	1-2	Stillwater
Bartlett, Burl	Sec.	1-2	Ripley
Bartow, Dorothy	Sec.	1-2	Okfuskee
Bartow, Helen	V. H. E.	1-2	Okfuskee
Bartow, John	Trades	1	Okfuskee
Bass, Elmer J.	V. A.	2	Elmwood
Bass, Zella Marie	H. E., Soph.	2	Enid
Bateman, Clara	Edu., Soph.	1-2	Soper
Bates, Wm. A.	V. A.	1	Norman
Baty, Abbie	H. E., Fr.	1-2	Stillwater

Bunn, H. G.	Sec.		1-2	Savanna
Bay, Pluma	Bus.	SS1		Perry
Beaman, Ross S.	V. A.		1-2	Haskell
Beanblossom, Floyd Z.	Agri., Fr.		1-2	Girard, Illinois
Beard, Fred J.	Agri., Sr.		1-2	Snyder
Beatty, Helen C.	Edu., Sr.	SS1	1-2	Helena
Beaver, Hobart A.	Arch., Fr.		1-2	Bethany
Beck, Wm. J.	Agri., Sr.		1-2	Hunter
Beckham, Ivan S.	Engr., Soph.		1	Arkadelphia, Arkansas
Beil Cecil W.	E. E., Soph.		1-2	Sapulpa
Bell, Clifton E.	Agri., Fr.		2	Sayre
Bellis, Rex	Arch., Fr.		1-2	Stillwater
Beltz, Aaron	Agri., Fr.		1-2	Ingersoll
Bentley, Louise	H. E., Fr.		1-2	Stillwater
Berkhimer Miriam	H. E., Jr.		1-2	Humboldt, Iowa
Bernard, Milo	Engr., Fr.		1	Yukon
Berry, Ruby	Sec.		1-2	Ripley
Berryman, C. C.	V. A.		1-2	Stillwater
Berryman, Gladys	Bus.		1-2	Stillwater
Bessire, Thomas L.	C. and M., Fr.		2	Headrick
Beumer, H. F.	V. A.		1-2	Vici
Bieberdorf, Fred W.	Sec.		1-2	Orlando
Bieberdorf, G. A.	Agri., Soph.		1-2	Orlando
Biggerstaff, Harmon	V. A.		1-2	Medford
Bigham, Marie	H. E., Fr.		1	Ramona
Billingslea, Ruth	H. E., Fr.		1-2	Chandler
Billman, Clara	Edu., Fr.		1-2	Deer Creek
Billman, Helen	H. E., Fr.		1-2	Deer Creek
Bishop, Hazel	Sec.		1-2	Cushing
Bishop, Lester	Bus.		1-2	Stillwater
Bishop, Lee R.	V. A.		1-2	Dublin, Texas
Bishop, Mrs. W. H.	Special		2	Stillwater
Bishop, W. J.	Agri., Fr.		1-2	Madison
Bittle, Alma	Sec.		1-2	Orlando
Black, Lizabell	H. E., Soph.		1-2	Milwaukee, Wisconsin
Black, Mary Ann	H. E., Soph.		1-2	Milwaukee, Wisconsin
Black, Marion R.	Bus.		1-2	Lamont
Blackburn, James C.	V. A.		1-2	Shawnee
Blackketter, Roy D.	V. A.		1-2	Leedey
Blair, Hoyt	Sec.		1	Butler
Blakely, Floyd	Sec.		1	Antlers
Blakely, Horace	Sec.		1-2	Antlers
Blaney, J. L.	Engr., Fr.		2	Marshall
Blasingame, A. J.	Special		1-2	Stillwater
Blasingame, Hubert	Bus.		1	Duke
Blattler, Paul Z.	Arch., Fr.		1-2	Enid
Bliss, Harmon E.	V. A.		1-2	Newkirk
Boerner, Carl	E. E., Soph.	SS	1-2	Sparks
Bohrer, Maude	Bus.	SS	1-2	Stillwater
Bohrer, Robert	Trades		1	Stillwater
Bolen, Morgan	V. A.		1-2	Stonewall
Boler, Bernice	Sec.		2	Stillwater
Boles, Charles C.	C. and M., Fr.		1-2	Enid
Bollinger, Dora	H. E., Soph.		1-2	Talihina
Bollinger, Philip H.	C. and M., Soph.		1-2	Kiowa
Bolyard, Chas. R.	C. and M., Fr.		1-2	Lindsay
Bolyard, N. W.	Ch. Engr., Soph.		1-2	Lindsay
Bond, Miller H.	Special		1-2	Enid
Bonham, W. W.	Agri., Sr.		1-2	Keota
Bonham, Winnie	S. and L., Fr.		1-2	Keota
Bonner, Lawrence	Engr., Fr.		1-2	Kingfisher
Bose, Carl	Trades		1	Bessie
Bossart, Iris	V. H. E.		1-2	Kremlin
Bossart, Teddy	Trades		2	Kremlin
Bowie, Joseph P.	V. A.		1-2	Sentinel
Bowman, J. Allen	Bus.		1	Sapulpa
Bowman, Edward	Sec.		2	Spiro
Boyd, Faye	H. E., Jr.		1-2	Hooker
Boyd, Frank	Agri., Fr.		1-2	Kremlin
Boyd, Fred	Special		2	Joplin, Missouri
Boyd, Ted	Trades		1-2	Sulphur
Bozarth, Jake	Engr., Fr.		1-2	Custer
Brack, Winnie	Special		1	Anadarko
Bracken, Clifford F.	Agri., Fr.		1-2	Okmulgee
Bradford, Florence A.	Special		1-2	Cushing
Bradshaw, Claude	Agri., Soph.		1-2	Nowata
Brady Henry Tate	Sec.		1-2	Tulsa
Brain, Edgar	Sec.		1	Woodward
Brakhage, Hugo	Bus.		1-2	Lahoma

Braly, B. B., Jr.	Agri., Sr.	2	Leonard, Texas
Braly, Edwin B.	Trades	1-2	Leonard. Texas
Braly, Warren L.	Bus.	1-2	Leonard, Texas
Brandon, Lillard	Sec.	1-2	Tuttle
Brandon, Virgil	Engr., Fr.	1	Tuttle
Branom, Berkley	V. A.	1	Lehigh
Brantley, Flora	Edu., Fr.	1-2	Goodwell
Brattin, Merle	C. and M., Fr.	1	Stillwater
Breeden, Clarence	Trades	1	Tryon
Broadlove, Walton	Sec.	1-2	Salisaw
Bridges, Iris D.	Bus.	1-2	Foraker
Briggs, A. Berne	Edu., Soph.	1-2	Stillwater
Briggs, James L.	V. A.	2	Red Oak
Briggs, Helen	Sec.	SS-1-2	Stillwater
Briscoe, Frank	Agri., Soph.	1-2	Perry
Brooks, Alma	H. E., Fr.	1-2	Ardmore
Brooks, John	Engr., Fr	1	Ticcott, Kanasa
Brooks, Robert N.	C. and M., Fr.	1-2	Chickasha
Brower, Ruth	Bus.	SS-1-2	Stillwater
Brown, Bainbridge	C. and M., Fr.	2	Sparks
Brown, R. B.	V. A.	1	Wright
Brown, B. H.	Engr., Fr.	1-2	Malden, Massachusetts
Brown, Jennie Lenore	Music, Soph.	2	Hoisington, Kansas
Brown, Reu W.	E. E., Soph.	1-2	Oklahoma
Brown, Ruth	H. E., Fr.	1-2	Bismark
Brown, Ted	Sec.	1	Stillwater
Bryan, Kenneth V.	Agri., Jr.	1-2	Stillwater
Buchanan, Chas. B.	Special	2	Bonham, Texas
Buckholts, Walter H.	V. A.	1	Elmore
Buckles, Fred Lee	V. A.	1-2	Edmond
Buffington, Leslie L.	Special	1-2	Luther
Bull, R. Beach	Agri., Fr.	1-2	Wakita
Buller, J. A.	V. A.	1-2	Goltry
Bullock, Nellie	H. E., Fr.	SS-1-2	Okemah
Bunyard, Claud L.	Agri. Jr.	1-2	Stillwater
Burchfield, Enoch	V. A.	1-2	Stillwater
Burk, Othie G.	V. A.	SS-1-2	Wakita
Burnham, Cecil	Sec.	1	Warwick
Burnam, Henry T.	Trades	1-2	Scranton, Texas
Burrough, Herman	V. A.	1-2	Checotah
Burrus A. O.	Sec.	2	Wetumka
Burton, Nellie	Sec.	1-2	Stillwater
Bush, Mildred	Sec.	1	Comnache
Bush, Nola	C. and M., Fr.	SS-1-2	Comanche
Bushnell. Iona E.	Special	1	Stillwater
Butcher, Mabel	Sec.	1-2	Ingalls
Butler, Frank T.	V. A.	1-2	Hix
Butler, Grace	H. E., Fr.	1-2	Guthrie
Butler, Orem T.	M. E., Jr.	1-2	Waukomis
Butler, Ruth	H. E., Soph.	1-2	Guthrie
Burnell, Sam C.	Engr., Fr.	2	Muskogee
Buzzard, Eugene	Sec.	1	Dale
Byrd, G. E.	Trades	2	Sallisaw
Cady, Hazel	Sec.	1-2	Red Rock
Cagle, C. W.	V. A.	1	Monroe
Calame, O. E.	E. E., Jr.	1-2	Stillwater
Calame, Winnifred	C. and M., Fr.	SS-1-2	Stillwater
Calavan Louis	Sec.	1-2	Kingfisher
Calavan, Spencer	Sec.	1-2	Kingfisher
Caldwell, Lancre	H. E., Jr.	SS-1-2	Stillwater
Caldwell, Zenil	Sec.	SS-1-2	Stillwater
Calhoun, Clarence	V. A.	2	Marlow
Callarman, Glen	Sec.	1	Stillwater
Campbell, Helen	H. E., Jr.	SS-1-2	Stillwater
Campbell, Walter F.	Agri., Fr.	1-2	Okmulgee
Campbell, Wm. D.	Agri., Fr.	1-2	Geary
Campbell, Pearl (Gudgel)	Bus.	SS-1	Stillwater
Canfield, Don W.	Special	1-2	Tulsa
Canfield, Ralph W.	S. and L., Sr.	1	Yale
Canfield, Roy E.	Ch. Engr., Soph.	1-2	Yale
Canster, Chas.	C. and M., Fr.	1-2	Chandler
Cantwell, Christine	S. and L., Fr.	SS-1-2	Stillwater
Cantwell, J. W., Jr.	S. and L., Sr.	1-2	Stillwater
Cantwell, R. W.	S. and L., Fr.	1-2	Stillwater
Caperton, Poalk	V. A.	2	Coalgate
Carleton, Mrs. Ethel	Special	1	Cooperton
Carlton, Gilby	Sec.	1-2	McLoud
Carlton, Hillis	Sec.	1-2	McLoud

Carleton, Howard	Agri., Soph.	SS-1-2	Stillwater
Carleton, Lee H.	Sec.	1-2	Stillwater
Carlton, Oscar F.	C. and M., Sr.	1-2	McLoud
Carlile, Naomi	H. E., Fr.	1	Enid
Carlisle, Robert	Trades	1-2	Stillwater
Carpenter, H. Carlisle	Agri., Fr.	2	Warner
Carroll, Edward L.	V. A.	2	Valley Springs, Arkansas
Carter, Joseph T.	Agri., Fr.	1-2	Newmarket
Carter, Wm.	V. A.	1	Oklahoma
Carter, Zaida	H. E., Sr.	SS-1-2	Stillwater
Casey, Ada	Sec.	1	Mulhall
Caughey, Harry	S. and L., Fr.	1	Pawnee
Cawood, Howard	Bus.	2	Stillwater
Cermak, Lizzie	H. E., Soph.	1-2	Red Rock
Cermak, Wesley	Sec.	1-2	Red Rock
Chapman, Ruth	Bus.	1	Stillwater
Chase, Martin Ward	Agri., Sr.	SS-1-2	Ralston
Cheatham, James	Engr., Fr	SS-1-2	Warwick
Chambers, Harry	Agri., Soph.	1	Grandfield
Chance, Sam	Bus.	1	Roosevelt
Chapman, May	Bus.	1	Red Rock
Cheatham, Vera	H. E., Fr.	SS-1-2	Warwick
Check, Leonard	S. and L., Fr.	1	Sallisaw
Chelf, Tom	Sec.	1-2	Hayward
Cherry, Fred Francis	Sec.	1-2	Sallisaw
Cherry, Vane V.	V. A.	2	Whiteflat, Texas
Childers, Almeda	Sec.	1-2	Stillwater
Childrrs, Hazel	Bus.	1	Stillwater
Chalders, Merritt G.	Agri., Fr.	1-2	Hillsdale
Childers, Manford D.	Special	2	Stillwater
Childers, A. Patrick	Special	1-2	Enid
Christy, M. C.	Bus.	1-2	Newkirk
Chockley, Ovid	Sec.	1	Madison
Church, Ercyle	Sec.	1-2	Perkins
Church, Merle R.	Engr., Fr.	1-2	Bartlesville
Cissna, L. L.	V. A.	1-2	Tecumseh
Clark, Aubrey E.	V. A.	1-2	Mangum
Clark, Donald	Agri., Fr.	2	Henryetta
Clark, Ellis	V. A.	1	Arnett
Clark, Edgar W.	S. and M., Fr.	1	Pawnee
Clause, Emma Lillian	S. and L., Fr.	1-2	Helena
Cluase, Grace	S. and L., Fr.	1-2	Helena
Clansen, Chester	Agri., Jr.	1-2	Stillwater
Clayman, M. W.	Engr., Fr.	1-2	Bartlesville
Clingenpeel, Mae	Sec.	SS-1-2	Stillwater
Cloud, Robert J.	V. A.	1-2	Boynton
Clump, Thomas D.	Agri., Sr.	1-2	Dover
Cobb, Harry F.	V. A.	1-2	Wagoner
Cobb, Hutton V.	V. A.	1-2	Vinita
Cobb, Irene Elizabeth	H. E., Fr.	1-2	Wagoner
Cobb, Kedzie	Trades	1-2	Wagoner
Cobb, Lida Mae	H. E., Soph.	1-2	Eddy
Coffer, Geo. V.	V. A.	2	Hastings
Coffey, May	H. E., Jr.	1-2	Goodwell, Texas
Coffman, James E.	V. A.	1	Belzoni
Cogburn, Berl	C. and M., Fr.	2	Coalgate
Colbert, Abijah	Agri., Soph.	1-2	Ada
Colbert, Richard F.	C. and M., Fr.	1-2	Ada
Cole, Gertrude	V. H. E.	2	Perry
Coleman, Lester L.	E. E., Sr.	1-2	Red Rock
Coley, Grace	S. and L., Fr.	1-2	Hollis
Collier, T. L.	Edu., Sr.	1-2	Durant
Collins, Mrs. N. E.	H. E., Sr.	1-2	Douglas
Colvin, Ethel	H. E., Fr.	1-2	Roosevelt
Colvin, Inez	Sec.	1-2	Morrison
Colwell, Jesse S.	V. A.	1	Wilburton
Combs, Henry	V. A.	1	Alex
Conrad, Herold	Sec.	1	Cement
Conrad, Helen	Sec.	1	Cement
Conrad, Ralph E.	Engr., Soph.	1	Cement
Cook, Arthur E.	Special	1-2	Alma, Arkansas
Cook, Oma	Sec.	1-2	Hayward
Cook, Wm.	Sec.	1-2	Alma, Arkansas
Cook, Winifred	C. and M., Fr.	2	Madison, Wisconsin
Cooksey, Sarah	H. E., Fr.	1-2	Goodwell
Coppedge Wm. H.	C. and M., Sr.	SS-1-2	Grove
Cordell, Ray N.	V. A.	1-2	Stratford
Correll, Ellen	H. E., Soph.	1-2	Stillwater
Correll, Esther	H. E., Fr.	1-2	Stillwater

Cosnoe, Smoote M.	V. A.	2	Hollis
Cosby, Jack	Sec.	1	Wister
Cotter, John H.	Sec.	SS-1-2	Fort Cobb
Cotton, Henry C.	Tradse	1-2	Nowata
Couch, Earl	Sec.	1-2	Stillwater
Courtney, M. C.	E. E.	1-2	Edmond
Covelle, Mrs. L. K.	Special	1-2	Stillwater
Cowan, Ira	Sec.	1-2	Cowlington
Cox, Rufus F.	Agri., Fr.	1-2	Clinton
Coyner, Raymond	V. A.	1-2	Edmond
Crabtree, Chester	Engr., Fr.	1-2	McLean, Texas
Crabtree, Earl C.	Agri., Fr.	1	Stonewall
Craft, Martin W.	Trades	1-2	Stillwater
Craft, Myrtle	Bus.	SS1	Stillwater
Craft, Paul V.	C. and M., Fr.	2	Gate
Craig, Vern	Sec.	1-2	Duke
Crawford, J. C.	Engr., Fr.	1-2	Ladonia, Texas
Crawford, Kyle G.	V. A.	SS-1-2	Mount Selman, Texas
Crays, Mrs. T. A.	Special	2	Stillwater
Creekmore, Della	Sec.	SS-1-2	Muldrow
Crenshaw, Ryan P.	Engr., Fr.	1	Broken Bow
Crook, Grace	Edu., Fr.	SS-1	Stillwater
Crooks, Cecil C.	Bus.	2	May
Croskell, McKinley	Sec.	1-2	Ardmore
Cross, Thelma	Sec.	SS-1-2	Stillwater
Cruz, Antonio	Sec.	1-2	Agana, Island of Guam
Curnutt, Minnie	H. E., Sr.	SS-1-2	Broken Arrow
Curnutt, Vivian	H. E., Soph.	1-2	Broken Arrow
Currie, Harry E.	Agri., Fr.	1-2	Shawnee
Curtice, Solon	Engr., Fr.	1	Edmond
Dailey, Truman	Sec.	1	Red Rock
Dale, Dean	Engr., Fr.	1-2	Stillwater
Dale, Donoven	Sec.	1-2	May
Daley, Thomas	Sec.	2	Sapulpa
Daniels, Raymond J.	V. A.	2	Sealy, Texas
Daniels, Edward W.	Special	SS-1-2	Sumner
Daniels, Harold	C. and M., Fr.	1-2	Stillwater
Daniels, Wm. W.	Engr., Fr.	1-2	Wheaton, Missouri
Darrow, Frank	V. A.	1-2	Mustang
Daubert, C. A.	Engr., Fr.	1	Carnegie
Davidson, Frances	Edu., Sr.	SS-1-2	Stillwater
Davidson, Nellie	Edu., Fr.	SS-1-2	Stillwater
Davis, Alice	Edu., Sr.	SS-1-2	Stillwater
Davis, A. H.	Agri., Soph.	1-2	Enid
Davis, C. C.	Sec.	SS-1-2	Spur, Texas
Davis, Clarence	Trades	1-2	Chickasha
Davis, Claude	M. E., Soph.	2	Medford
Davis, Frank	Engr., Fr.	1-2	Iowa Park, Texas
Davis, Robert A.	Sec.	1	Spur, Texas
Davis, Harold G.	Engr., Fr.	1-2	Mena, Arkansas
Davis, Perry	Sec.	1-2	Chickasha
Davis, Lester L.	Sec.	1	Pampa, Texas
Davis, Paul R.	S. and L., Fr.	1-2	Stillwater
Davison, Irwin S.	V. A.	1	Fairview
Dawson, Sidney	S. and L., Soph.	2	Chickasha
Dawson, Eareld	Sec.	1-2	Stillwater
Day, Fannie B.	Edu., Fr.	SS-1-2	Stillwater
Day, Mrs. James W.	Special	2	Stillwater
Dean, Cecil K.	C. and M., Fr.	1-2	Carney
Dean, Clifford	C. and M., Fr.	1-2	Ryan
Dean, Daisy Lynn	H. E., Fr.	1-2	Carney
Dean, Grover C.	Special	1-2	Carney
DeBois, Virginia Lee	Music, Soph.	1-2	Stillwater
Deem, Joseph M.	Sec.	1	Anderson, Missouri
Decker, Ernest J.	V. A.	SS-1-2	Maramec
De Fee, Anna Mae	Sec.	1	Frederick
De Fee, Marion	Trades	1-2	Stillwater
De Fee, Mrs. Marion	Bus.	1-2	Stillwater
Deffeyes, Alfred J.	V. A.	1-2	Hugo
De Grouchy, James	V. A.	1-2	Kiowa
Delay, Perry E.	Engr., Fr.	1	Wakita
Delzell, James	Sec.	1	Pond Creek
Demoss, James	Bus.	1	Stillwater
Demoss, Grace	Bus.	1-2	Stillwater
Denman, Isola	Sec.	SS-1-2	Stillwater
Denman, Roger S.	Agri., Soph.	1-2	Stillwater
Dennis, Georgia A.	Bus.	SS-1-2	Stillwater
De Vore, James H.	V. A.	1-2	Norman

De Witt, Glenn C.	Sec.	1-2	Oklahoma
Dickson, Cecil B.	Special	2	Hugo
Dickerson, L. L.	Arch., Soph.	SS-1-2	Stillwater
Dillon, Herbert G.	Engr., Fr.	1-2	Woodward
Digby, Thomas	V. A.	1 2	Davis
Divine, Lois	V. A.	1-2	Fallis
Dixon, Herbert L.	C. and M., Soph	1-2	Wewoka
Dollarhide, Zelma	Sec.	1-2	Bismark
Dolphin, P. M.	C. and M., Soph.	1-2	Calumet
Dounelley, H. F.	Engr., Fr.	1	Enid
Donovan, D. E.	A. E., Soph.	1-2	Kremlin
Dorman, Mrs. Anna	Bus.	1	Stillwater
Doss, H. A.	V. A.	2	Kimber
Douglas, G. N.	C. E., Sr.	1-2	Stillwater
Douglas, Mary	S. and L., Fr.	1-2	Guthrie
Downey, Helen	H. E., Soph.	SS-1-2	Stillwater
Downey, Ivan	Engr., Fr.	1	Bethany
Downey, R. L.	Agri., Fr.	1	Grant
Downey, Wm.	C. and M., Fr.	2	Stillwater
Drake, Aulbin	Trades	1-2	Seminole
Drake, Glen	Sec.	1-2	Gracemont
Driscoll, Ernest	Trades	2	Oklahoma City
Dryden, Oran N.	Trades	1-2	Stillwater
Dunavan, Ralph A.	C. and M., Fr.	1-2	Enid
Duncan, Ray	Engr., Fr.	1-2	Glencoe
Duptee, Roy	S. V. A.	1	Soper
Duston, Ovid	Sec.	1	Haskell
Dyche, Lucille	H. E., Fr.	1-2	Lahoma
Dye, Jessie	H. E., Soph.	SS-1-2	Stillwater
Dye, Ruby	Sec.	1-2	Stillwater
Dye, Richard	S. V. A.	2	Norman
Early, Geo. W.	S. V. A.	1-2	Fairview
Eaton, Cecil Howard	S. V. A.	1-2	Skedee
Eaton, Edna L.	Edu., Soph.	1-2	Skedee
Eaton, Carl	Trades	1	Terlton
Eberhart, Anna	Bus.	SS-1-2	Perkins
Edens, John J.	Trades	2	Bokchito
Edmonson, Carl J.	Trades	1-2	Billings
Edmonson, Myrle	H. E., Fr.	1-2	Chandler
Edwards, Carmelita	Sec.	1-2	Morrison
Edwards, Mary	H. E., Soph.	1-2	Medford
Edwards, Walter D.	Special	1-2	Stillwater
Egbert, Harold D.	Sec.	SS-1	Chandler
Egleston, John	Sec.	1-2	Guthrie
Elbertson, Delana	H. E., Fr.	1-2	Sallisaw
Elkins, Oscar P.	C. and M., Fr.	1-2	Reed
Elledge, Audry J.	Sec.	1-2	Stillwater
Elledge, L. E.	Engr., Fr.	SS-1-2	Stillwater
Elledge, Lillian	Sec.	1-2	Stillwater
Elliott, Opal	Special	2	Stillwater
Elliott, Virgil	Engr., Fr.	1	Wynnewood
Ellis, A. H.	S. V. A.	SS-1	Ringling
Ellis, Lester W.	Engr., Fr.	1-2	Oklahoma City
Ellis, Lois	H. E., Fr.	SS-1-2	Stillwater
Ellithorp, Roy	Trades	1-2	Mecker
Elmore, Clarence	S. V. A.	1	Alma
Elrod, Clyde	Sec.	SS-1	Lenapah
Emert, Elmina	Sec.	1-2	Stillwater
Emert, Glen	S. V. A.	1-2	Stillwater
Emert, Mary	Sec.	1-2	Stillwater
Emmons, W. H.	Engr., Fr.	1-2	Vinita
Enlow, Margaret	H. E., Fr.	1-2	Stillwater
Enlow, Ross M.	C. and M., Fr.	2	Mooreland
Erlow, Ruth	S. and L., Fr.	1-2	Stillwater
Evanhoe, Bernard	Sec.	1-2	Ralston
Ewing, Unecta	Sec.	1-2	Sharon
Ensworth, Harriet	Special	1	Ardmore
Farnsworth, Lester	Trades	1-2	Tryon
Farnsworth, Lottie	C. and M., Fr.	1-2	Tryon
Farr, Arthur G.	Sec.	1	Antlers
Farrington, O. M.	Agri., Fr.	1-2	Carmen
Fath, Geo. W.	Trades	1-2	Tonkawa
Feaster, Bessie	H. E., Fr.	1-2	Pawnee
Fennema, Pete	Agri., Sr.	1-2	Lawton
Fetzer, Dale C.	Agri., Sr.	1-2	Helena
Fetzer, Goldia	H. E., Fr.	1-2	Helena
Fiala, Agnes	Music, Fr.	1-2	Goodnight

Files, Kilby	Sec.	1-2	Albion
Fink, Geo.	Trades	1	Walters
Finley, Bennett	V. A.	1-2	Antlers
Finnell, John	V. A.	1-2	Orlando
Finnell, Martha	Sec.	1-2	Orlando
Finney, W. D.	Agri., Fr.	1-2	Fort Cobb
Fisher, Irene	C. and M., Fr.	SS-1-2	Stil water
Fisher, Teague	Agri., Sr.	1	Arapaho
Fite, Orla	Trades	2	Apache
Fitzgerald, Milton	Sec.	1-2	Iowa Park, Texas
Flanary, Thos. J.	Sec.	1	Sugar City, Colorado
Florence, David	C. and M., Soph.	1-2	Tulsa
Flournoy, Floyd	Sec.	1	Tulsa
Floyd, Curtis	Agri., Jr.	1-2	Ada
Floyd, Rossie	Agri., Soph.	1-2	Vandalia, Ohio
Foliart, Emma	Sec.	1-2	Enid
Foliart, Jesse	Sec.	1-2	Enid
Folk, Charles	Engr., Fr.	1-2	Lawton
Folk, Joe	Engr., Soph.	1-2	Lawton
Fooshee, Lillian	Edu., Fr.	1-2	Guthrei
Foote, J. L.	Trades	2	Amarillo, Texas
Ford, Joan	Sec.	2	Mulhall
Forrester, W. B.	Agri., Soph.	1-2	Ashland
Foster, Harry D.	Ch. E., Soph.	1-2	Stillwater
Foster, Mabel Clair	H. E., Fr.	SS-1-2	El Reno
Foster, Thompson C.	V. A.	1-2	Perry
Fountain, Hugh A.	V. A.	SS-1	Collinsville, Texas
Fox, Otis Otto	S. and L., Fr.	1-2	Fresno, California
Franklin, Leo'a	Bus.	1-2	Grimes
Fredikint, Hulda	Sec.	2	Perry
Freeman, Z. B.	S. and L., Soph.	1-2	Enid
French, Earl R.	Agri., Sr.	1-2	McLeansboro, Illinois
Friedemann, Adolph	M. E., Soph.	1-2	Stillwater
Friedemann, Marie	Sec.	1-2	Stillwater
Friedemann, Otto H.	S. and L., Sr.	1-2	Stillwater
Friedemann, Paul E.	Engr., Fr.	1	Stillwater
Frost, Mark	Engr., Fr.	1-2	Stillwater
Frost, R. L.	Agri., Soph.	1-2	Stillwater
Fry, Cora Vivian	Sec.	1-2	Claremore
Fry, Francis C.	Agri., Sr.	1-2	Thomas
Fry, Floyd V.	Sec.	1-2	Thomas
Fry, R. B.	Agri., Soph.	SS-1-2	Stillwater
Fuller, V. R.	Trades	1	Morrison
Fundis, Walter	Sec.	1	Wanette

Gabbard, Emma	Sec.	1-2	Roosevelt
Gaddis, Preston G.	Engr., Fr.	1-2	Piggott
Gamble, John P.	V. A.	1-2	Tishomnigo
Gardner, Frank	Special	2	Hot Springs, Arkansas
Geren, Joe	Sec.	1-2	Anadarko
Garlock, Bertha	H. E., Fr.	SS-1-2	Richmond
Garlock, Harry M.	Agri., Sr.	1-2	Richmond
Garrett, Rada Sue	H. E., Fr.	1-2	Mangum
Garringer, Clara	H. E., Jr.	1-2	Medford
Garringer, Mabel	Sec.	1-2	Medford
Gassaway, Frank	Engr., Fr.	2	Stillwater
Gaunt, Lionel	C. and M., Fr.	1	Cushing
Gay, Thurman	C. and M., Sr.	1-2	Pawhuska
Cayman, Sue	H. E., Sr.	1-2	Okeene
Gearhart, H. B.	Engr., Fr.	1-2	Hobart
Gentry, Irma	C. and M., Sr.	1-2	Pawnee
Georgia, Carrie	Sec.	1-2	Ripley
Gibson, J. L.	Sec.	1-2	Grove
Gifford, La Mont	V. A.	1-2	Fairview
Giger, Marion I.	V. A.	2	Rush Springs
Gilbert, A. E.	Sec.	1-2	Salt Fork
Gilbert, Bina Mae	Sec.	1-2	Salt Fork
Gilbert, Earl L.	Sec.	1-2	Salt Fork
Gilbert, Elmer G.	V. A.	2	Stillwater
Gilbert, Richard	Trades	1	Hardy
Gillispie, Bert	V. A.	1-2	Chelsea
Gillum, J. L.	S. and L., Jr.	1-2	Minco
Gilmer, Guy	Trades	1-2	Stil water
Gilstrap, Wheeler	Trades	1-2	Featherstone
Gish, Geo.	Bus.	1	Thomas
Glazier, Lucille	H. E., Fr.	SS-1-2	Eufaula
Glendening, Geo. W.	C. E., Sr.	1	Hartshorne
Glisan, M. J.	V. A.	1-2	Higgins, Texas
Godden, Paul R.	Sec.	1	Fort Sill

Goll, M. F.	Special		1-2	McAlester
Gooch, Everett	S. and L., Fr.		1-2	Agra
Gooch, Glenn	Sec.		1-2	Agra
Goodfellow, Everal	Edu., Fr.		1-2	Headrick
Goodholm, E. H.	C. and M., Fr.		1-2	Stillwater
Goodholm, Ruth	Music, Fr.		1-2	Stillwater
Goodson, J. E.	V. A.		1-2	Shawnee
Goodwin, B. T.	V. A.		2	Heavener
Goodwin, Mrs. R. Q.	Edu., Soph.	SS-1-2		Stillwater
Goodwin, R. Q.	Edu., Jr.	SS-1-2		Stillwater
Goold, E. A.	Bus.		1-2	Glencoe
Goranflo, W. E.	Agri., Fr.		1-2	Quinlan
Gordon, S. M.	V. A.		1-2	Burneyville
Gould, Brenda	H. E., Soph.		1-2	Stillwater
Gould, Chester	C. and M., Fr.		1-2	Stillwater
Gould, Floyd	Sec.		1-2	Pawnee
Gound, Scottie	Engr., Fr.		1	Duncan
Gourley, Wm.	C. and M., Fr.		1-2	Grandfield
Graham, Albert	Trades		1-2	Atoka
Graham, Bob	Trades		1-2	Atoka
Graham, Herbert A.	Agri., Soph.		1-2	Abbott, Arkansas
Graham, Russell	Sec.		1-2	Dalhart, Texas
Grant, Estelle	Bus.		1	Paden
Grant, Minnie	H. E., Fr.		1	Paden
Graves, Chas.	C. and M., Fr.		1-2	Talala
Graves, Eugene	Sec.		1-2	Perkins
Graves, Helen C.	C. and M., Fr.	SS-1		Stillwater
Graves, Lauretta	Special	SS-1-2		Stillwater
Gray, Earl W.	E. E., Sr.		1-2	Guthrie
Grayson, C. E.	V. A.		1-2	Mountain View
Green, George	C. and M., Soph.		1-2	Bethel
Green, Harold	C. and M., Soph.	SS-1-2		Madill
Green, Horace A.	Sec.		1-2	Stillwater
Green, Jess L.	C. and M., Soph.		1-2	Lone Wolf
Green, B. Ralph	Sec.		1-2	Stillwater
Greer, A. Marie	Sec.		2	Pawnee
Greiner, Agnes	H. E., Fr.	SS-1-2		Stillwater
Grimes, Lucille	S. and L., Soph.		1-2	Walters
Grimsley, J. T.	Engr., Fr.		1-2	Pawnee
Grove, C. G.	Engr., Fr.		1-2	Wetumka
Groves, Mamie L.	Sec.		1	Stillwater
Grow, Ena	H. E., Fr.	SS-1-2		Clinton
Grow, Russell	C. and M., Fr.		1-2	Loup City, Nebraska
Grunden, Floyd	V. A.	SS-1-2		Wyandotte
Gulick, Raymond	Sec.		2	Oklahoma
Guthrie, Bernice	Music, Soph.		1-2	Perry
Guthrie, Mike	V. A.		1-2	Kaufman
Haag, Eugene R.	V. A.		1-2	Stillwater
Haag, Sophia	Bus.		1-2	Stillwater
Hafner, V. L. O.	Agri., Fr.	SS-1-2		Stillwater
Hall, Geo. W.	M. E., Soph.		2	Mangum
Hall, Georgia	H. E., Sr.	SS-1-2		Stillwater
Hall, Robert G.	V. A.		1-2	Roosevelt
Hall, Wm. I.	Bus.		1	Stillwater
Ham, John	C. and M., Soph.	SS-1-2		Stillwater
Hamilton, Joe	Trades		1	Canton
Hamlin, Jamis	V. A.		1-2	Quinton
Hammond, Willah	Sec.		1-2	Medford
Hampton, Leo	Bus.		1-2	Blackburn
Hand, Dent	C. and M., Soph.		1-2	Salt Fork
Hardin, John W.	V. A.		1-2	Lexington
Hardin, W. T.	V. A.		1-2	Cordell
Hargis, Frank	Special	SS	2	Oklahoma
Harmon, Irene	C. annd M., Jr.		1-2	Yale
Harmon, Thelma	H. E., Fr.		1-2	Vinita
Harnden, Lemuel M.	Trades	SS-1-2		Stillwater
Harnden, Minnie	Sec.		2	Stillwater
Harp, Mark E.	V. A.		1-2	Ketchum
Harper, Paul L.	Trades		1-2	Oakwood
Harper, Roy E.	Agri., Jr.		1-2	Oklahoma
Harrell, Leona	H. E., Fr.		1-2	Calvin
Harrelson, H. F.	V. A.		1-2	Clinton
Harrington, Helen C.	Bus.		1-2	Depew
Harris, Blanche	Sec.		2	Stillwater
Harris, H. Stafford	Bus.		1-2	Broken Bow
Harris, Lura	Sec.		2	Stillwater
Harris, Wm. M.	V. A.		1-2	Tishomingo
Harrison, Kara	Bus.		1-2	Savanna

Harsh, B. D. F.	Engr., Fr.	1	Ponca City
Hart, Rupy L.	C. and M., Fr.	1-2	Ninnekah
Hartpence, D. H.	Sec.	1-2	Stillwater
Hartung, Kate	Sec.	1	Orladno
Harvey, Arthur	C. and M., Fr.	1-2	Stillwater
Harvey, Ruth	Music, Soph.	1-2	Stillwater
Harwell, Fred C.	V. A.	1-2	Webbers Falls
Haskett, Vesta	Bus.	2	Stillwater
Hassler, F. R.	Engr., Fr.	1-2	Stillwater
Hastain, James F.	Engr., Fr.	1-2	Muskogee
Hastings, Anna L.	H. E., Soph.	1-2	Perkins
Hastings, Joe H.	Sec.	1-2	Perkins
Hastings, Lois	Sec.	2	Perkins
Haston, Clyde	Agri., Sr.	SS-1-2	Tribby
Hatch, Thos. J.	Agri., Sr.	1	Enid
Hatfield, Albert L.	S. and L., Fr.	1	Hydro
Hatfield, Ernest F.	C. and M., Fr.	1-2	Stillwater
Haughey, Claude	V A	1-2	Crescent
Hawes, V. B.	C. and M., Fr.	1-2	Shawnee
Hawkins, Jesse	V. A.	2	Moody
Hawley, Dorothy	H. E., Fr.	1-2	Cushing
Hawthorn, Edgar	Sec.	1	Holdenville
Hawthorn, Roy	Sec.	1-2	Holdenville
Haxton, Doyle E.	Sec.	1-2	Cotebo
Hayes, Otto	Trades	1	Springfield, Missouri
Hayman, Bert	Special	1	Wyandotte
Hayman, Hattie	Edu., Fr.	1-2	North Enid
Heck, Adam M.	V. A.	1-2	Centrahoma
Heck, Helen	H. E., Soph.	SS-1-2	Helena
Heinz, Lewis G.	V. A.	1-2	Rosston
Helma, Mabel	H. E., Jr.	1-2	Enid
Helm, Wayne	Sec.	1-2	Chickasha
Hemphill, John A.	Agri., Fr.	1-2	Richmond, Arkansas
Henderson, Charlcie	Bus.	2	Stillwater
Henderson, Charlie	Sec.	1-2	Stillwater
Henderson, De Witt	Sec.	1-2	Stillwater
Henderson, F. E.	V. A.	2	Portales, New Mexico
Henderson, Jessie E.	H. E., Fr.	1-2	Independence, Kansas
Hendrickson, Asher	M. E., Soph.	1-2	Boynton
Hendrickson, Hugh	Engr., Fr.	1-2	Boynton
Hendrickson, Margaret	H. E., Jr.	1-2	Boynton
Hendrie, Ruth	H. E., Fr.	1-2	Waynoka
Hendrix, Ray O.	Engr., Fr.	1-2	Hobart
Hendrix, Rex B.	C. and M., Jr.	1-2	Hobart
Henry, Charles R.	V. A.	1-2	Cheeotah
Henson, Edwin R.	Agri., Sr.	1-2	Stillwater
Henson, Elmer D.	V. A.	1-2	Stillwater
Henson, Helen	H. E., Sr.	2	Stillwater
Henson, H. H.	Sec.	1	McLoud
Henson, Merritt	Sec.	1-2	Stillwater
Henson, Ralph D.	Sec.	1	McLoud
Henson, Russell	V. A.	1-2	Pauls Valley
Hess, Nona	Edu., Fr.	1-2	Guthrie
Hester, Bert	V. A.	2	Owens, Texas
Hesterlee, W. D.	Bus.	1-2	Terlton
Hesterlee, Archie	Bus.	1	Terlton
Hetherington, V. J.	Special	1-2	Oklahoma
Heusel, Anola	Sec.	1-2	Salt Fork
Hewett, Frank	Engr., Fr	SS-1-2	Middleberg
Hibbard, Burl	V. A.	1-2	St. Paul, Arkansas
Hickman, Glynn	V. A.	1-2	Hennessey
Hicks, Beatrice	H. E., Jr.	1-2	Chandler
Hicks, Lile	V. A.	2	
Hidy, F. Leah	V. H. E.	1-2	Piedmont
High, Ware	Sec.	1	Thackerville
Higgins, Osmond	Trades	2	Wellington, Texas
Higgins, Solon	V. A	2	Wellington, Texas
Hilbert, Otto	Trades	1	Geronimo
Hildebrand, Richard	C. and M., Soph.	1-2	Stillwater
Hill, Erskine	Bus.	1-2	Durant
Hill, James M.	Trades	1	Holdenville
Hill, Troy	Sec.	1	Cotebo
Hillbrant, C. K.	Ch. E., Soph.	1-2	Lamont
Hilton, Chas. B.	V. A.	1-2	Seiling
Hinkle, Myrtle	Bus.	1-2	Stillwater
Hinshaw, E. L.	Sec.	1-2	Sharon
Hinson, M. W.	E. E., Soph.	1-2	Eldorado
Hirzel, H. H.	C. and M., Soph.	1-2	Guthrie
Hobbs, Gladys	S. and L., Jr.	1-2	Doyle

Hodges, Jo	H. E., Fr.	2	Oklahoma
Hodgden, Theo. W.	Sec.	1-2	Enid
Hofmeister, Ethel	Edu., Fr.	1-2	Caney, Kansas
Hogan, P. H.	Special	1	Bethel
Hoke, Jesse W.	C. and M., Sr.	1-2	Stillwater
Hollingshead, Estell C.	E. E., Soph.	1-2	Lawton
Holman, Lynn W.	C. and M., Fr.	1-2	Stuart
Holman, Chas. W.	V. A.	2	Marble Falls, Texas
Holmes, Carl	C. and M., Fr.	1-2	Stillwater
Holmes, Elma	Bus.	1	Oklahoma
Holmes, Neta	Music, Soph.	1-2	Stillwater
Holmes, R. K.	Sec.	1-2	Mannford
Holt, Mrs. Mabel	S. and L., Soph.	SS-1-2	Shawnee
Holt, W. W. W.	S. and L., Fr.	SS-1-2	Stillwater
Hopkins, Omer	Engr., Fr.	1-2	Crescent
Hoskinson, Florence	Sec.	1-2	Stillwater
Houck, David J.	Trades	1-2	Stillwater
Houston, Martha	Sec.	1-2	Goodnight
Houston, Oscar D.	V. A.	2	Arnett
Howard, Virginia	Special	1	
Howell, Dora	V. H. E.	1-2	Stillwater
Howery, George W.	V. A.	1-2	Yarnaby
Hubbard, Melvin	Trades	1-2	Stillwater
Hubbard, Wayne H.	Bus.	1	Omega
Hubenthal, Harry K.	Engr., Fr.	1-2	Oklahoma
Huckstep, James T.	Sec.	1-2	Stillwater
Hudiburg, C. L.	S. and L., Fr.	1-2	Stillwater
Hudson, Summers	Agri., Fr.	2	Willow
Huffman, Thomas J.	Sec.	2	El Reno
Hughes, G. F.	V. A.	1-2	Sharpmill
Hughes, Gertrude	Bus.	SS-1	Stillwater
Hughes, Gladys	C. and M., Fr.	SS-1-2	Stillwater
Hughes, Wm. H.	C. and M., Fr.	1	Ames
Hughes, S. B.	Trades	1	Wainwright
Hughey, Pettus	Sec.	1	Sprott, Alabama
Hull, Everett R.	Engr., Fr.	1-2	Cleveland
Hulse, R. A.	V. A.	1-2	Hollis
Hulse, Ollie	Agri., Fr.	1-2	Hollis
Humphrey, Lester	Bus.	1-2	Sallisaw
Hunt, Glyn W.	V. A.	1-2	Stillwater
Hunter, Jane	H. E., Jr.	1-2	Mangum
Hunter, R. A.	V. A.	1-2	Woodward
Hurley, Harold B.	V. A.	1	Watonga
Hurley, Virginia	Bus.	1	Stillwater
Hurst, Mrs. Clarabell	H. E., Fr.	1-2	Stillwater
Hurst, Dick	C. and M., Soph.	1-2	Stillwater
Hurst, Francis H.	V. A.	1-2	Stillwater
Hurst, Henry	Sec.	1-2	Orlando
Hutchison, Bessie	Edu., Soph.	SS-1-2	Stillwater
Ikard, John A.	C. and M., Fr.	1-2	Chickasha
Ingram, Clyde	Agri., Fr.	1-2	Hollis
Ireland, Thomas	Trades	1	Ralston
Isenberg, Gilbert H.	Agri., Soph.	1-2	Stillwater
Ives, Maxwell	Agri., Soph.	1-2	Shawnee
Ivy, Ethel	S. and L., Fr.	2	Stillwater
Ivy, Eugene	V. A.	1-2	Stillwater
Jackson, L. L.	Bus.	1	Shamrock
Jacob, Albert	V. A.	1	Stillwater
Jacob, Bula	H. E., Soph.	1-2	Mangum
Jacob, Joan	Sec.	2	Cleora
Jensen, R. E.	Engr., Fr.	1-2	Thomas
Janz, S. P.	V. A.	2	Mountain View
Jeffries, Mary Ellen	Sec.	2	Pawnee
Jehlicka, Bohumil	Sec.	1-2	Stillwater
Jehlicka, Ludwick	Engr., Fr.	1-2	Stillwater
Jenkins, Agnes	Sec.	1-2	Perkins
Jenkins, Henry B.	S. and L., Soph.	1 2	Perkins
Jester, Dave	V. A.	2	Oklahoma
Jester, Louise	Edu., Soph.	SS-1-2	Stillwater
Johnson, Frank J.	Engr., Fr.	1-2	Pawnee
Johnson, Henry M.	Special	1-2	Stillwater
Johnson, Hezekiah	V. A.	1-2	Kibby
Johnson, Janie Mae	H. E., Jr.	1-2	Pawnee
Johnson, Lloyd	V. A.	1-2	Stillwater
Johnson, Opal	H. E., Fr.	1-2	Chandler
Johnson, Rhoda	Sec.	1-2	Sallisaw
Johnson, Robert G.	Sec.	1-2	Stillwater

Johnson, S. B.	Agri., Fr.	1	Two Buttes, Colorado
Johnson, Olivia M.	Bus.	1	Two Buttes, Colorado
Johnston, T. R.	Engr., Fr.	1-2	Cushing
Jones, Caroline	H. E., Sr.	1-2	Oklahoma
Jones, Charlotte	H. E., Fr.	1-2	Stillwater
Jones, Carrie F.	Special	2	Stillwater
Jones, Donia	Sec.	SS-1-2	Soper
Jones, Emily	Sec.	SS-1-2	Stillwater
Jones, Goldia	C. and M., Jr.	1	Stillwater
Jones, James C.	Trades	1-2	Coffeyville, Kansas
Jones, Miller	V. A.	1-2	Rockwall, Texas
Jones, Nettie	V. H. E.	1-2	Cordell
Jones, Ralph L.	Bus.	1	Navina
Jones, Ray	C. and M., Soph.	1-2	Stillwater
Jones, Ruth	H. E., Fr.	SS-1-2	Stillwater
Jordan, Floy	Sec.	1-2	Rocky
Judy, A. S.	S. and L., Fr.	1	Pawnee
Kane, Cora	H. E., Sr.	SS-1-2	Stillwater
Karban, Anna	V. H. E.	1-2	Fairmont
Karban, B. R.	Trades	2	Fairmont
Katz, Sigmond	Agri., Sr.	SS-1-2	Sapulpa
Keele, Wm. S.	Agri., Fr.	1-2	Ardmore
Keely, Arline	H. E., Fr.	1-2	Arcadia
Keen, Clifford	Engr., Fr.	1-2	Weatherford
Keen, Paul	Engr., Fr.	1	Weatherford
Keiffer, Beulah	H. E., Fr.	1-2	Helena
Keiffer, Roscoe F	Agri., Sr.	1-2	Helena
Keith, Soldier M.	V. A.	1-2	Stilwell
Keller, Alvin C.	V. A.	1-2	Henryetta
Kelley, Byron L.	Sec.	1-2	Pryor
Kennemer, Essie	Sec.	1-2	Glencoe
Kenny, Roy W.	Agri., Sr.	1-2	Blackwell
Kent, Roy	C. and M., Fr.	1-2	Nash
Ketch, Aurvil	Sec.	1-2	Omega
Ketch, Warren	Sec.	1-2	Omega
Keys, Leona	Bus.	1-2	Boulder, Colorado
Keys, Wm. Chester	C. and M., Fr.	1-2	Stillwater
Kezer, Irene	S. and L., Fr.	1-2	Stillwater
Kibler, J. Byron	E. E., Sr.	1-2	McLean, Texas
Kidd, Robert T.	Engr., Soph.	1-2	Bristow
Kilpatrick, Lester	Sec.	1-2	Hunter
Kilpatrick, Pearl	Sec.	1-2	Hunter
Kimberlin, Mattie	S. and L., Fr.	1-2	Altus
Kimple, Virgil R.	Trades	1	St. Joseph, Missouri
Kinch, Chas. W.	Trades	2	Depew
King, Florence	Sec.	1-2	Okfuskee
King, Nancy Ann	H. E., Sr.	1-2	Enid
Kingsley, V.	Sec.	1-2	Canton
Kinney, Fern	Sec.	SS-1-2	Yale
Kinnaman, C. C.	Sec.	1	Hastings
Kirk, James H.	V. A.	2	Stillwater
Kirkland, Ira H.	Engr., Fr.	1-2	Muskogee
Kirkpatrick, James Estel	Agri., Fr.	1-2	Oklahoma
Kirkpatrick, Tom	Agri., Soph.	1-2	Lewisville, Texas
Kirkpatrick, W. D.	Agri., Fr.	1-2	Lewisville, Texas
Kisselburg, Carl H.	Edu., Fr.	1	Marietta
Kite, Charles	V. A.	1-2	Sobal
Knight, F. J.	V. A.	2	Point, Texas
Knight, Fred	Sec.	1-2	Stillwater
Knight, Ivan	Sec.	1-2	Stillwater
Knight, Joe	Sec.	1-2	Stillwater
Knight, Roy C.	C. and M., Fr.	1-2	Stillwater
Knipe, Streeter	Sec.	1-2	Perkins
Kollar, F. S.	Agri., Fr.	1-2	Woodward
Korncgay, C. S.	Agri., Fr.	1-2	Vinita
Kraemer, Florence	Music, Soph.	1-2	Perry
Kramer, Teddy	Sec.	1-2	Maramec
Kramer, Glenna	Edu., Jr.	SS-1-2	Maramec
Kramer, Lloyd A.	Sec.	1	Maramec
Kratzer, Roy E.	E. E., Soph.	1-2	Wenatchee
Krause, Lloyd	Sec.	1-2	Dustin
Krauss, Louise	S. and L., Fr.	SS-1-2	Pawnee
Kroenke, Alvin	Special	2	Fairland
Kroutil, Edward	C. and M., Fr.	1-2	Prague
Kucera, Albina	V. H. E.	1-2	Shawnee
Kugel, Glen	C. and M., Fr.	1-2	Salt Fork
Kugel, Harry	C. and M., Fr.	1-2	Salt Fork
Kuntz, Earl	S. and L., Fr.	1-2	Iowa Park, Texas

LaBrier, John	Trades	1	Kenton
La Fen, Earl	Trades	1	Orlando
La Fen. Finis	Sec.	1-2	Orlando
Lahr, Herbert	Agri., Sr.	1	Waynoka
Landers, Lee M.	C. and M., Fr.	1	Cushing
Landes, Floyd	V. A.	1	Grandfield
Landsaw, J. Robert	Sec.	1	Chandler
Lane, Henrietta	S. and L., Fr.	1-2	Coalgate
Lane, J. R.	C. and M., Soph.	1-2	Shawnee
Lane, Mary Lou	H. E., Fr.	1	Soper
Lanphere, Wm. B.	Agri., Fr.	1-2	Deer Creek
Larkins, E. C.	Sec.	1	Okarche
Larner, Ray A.	E. E., Sr.	1-2	Dill
Larrick, Jerome	V. A.	1	Bison
Latimer, Eula	Sec.	1-2	Pawnee
Latimer, Mary Grace	Sec.	1-2	Pawnee
Latimer, Raymond	Sec.	2	Pawnee
Latimer, Vera	H. E., Fr.	1-2	Pawnee
Lauderdale, Gladys	Sec.	1-2	Avery
Lauderdale, Glen	Sec.	SS-1-2	Stillwater
Lauderdale, Grace	Sec.	SS-1-2	Stil'water
Laurent, J. H.	V. A.	1-2	Tipton
Lawellin, Rosa A.	Bus.	1-2	Goltry
Lawellin, W. D.	Bus.	1	Goltry
Lawhorn, Dorothea Lee	Bus.	1-2	Jenks
Lawhorn, Mary	Bus.	2	Stillwater
Leard, W. R.	Agri., Fr.	1-2	Hugo
Lee, Robert E.	Bus.	1-2	White Deer, Texas
Lemay, Geo.	V. A.	1-2	Elden
Lemmen, H. D.	C. and M., Soph.	1-2	Minco
Lemmen. Robert	C. and M., Fr.	1-2	Minco
Lewis, Elmer	V. A.	1	Hodgen
Lewis, Louella Inez	Bus.	1	Forrest City, Arkansas
Liebhart, Marion C.	C. and M., Soph.	1-2	Drummond
Ligon, Elmer E.	V. A.	2	Bonaqua
Lile, Ivo	Sec.	1	Stillwater
Lindsey, Laura	Sec.	1-2	Keystone
Little, Wil'ard	Sec.	1	Beaver
Locke, R. W.	Engr., Fr.	1-2	Wakita
Logan, J. G.	V. A.	1	Snyder
Lehman, Maude	Bus.	1-2	Prue
Lonergan, John L.	Agri., Fr.	1-2	Pawnee
Long, Edgar A.	Sec.	1	Pawnee
Long, Lela Dott	H. E., Fr.	1-2	Pawnee
Long, Willis E.	V. A.	1-2	Oklahoma
Long, Wm. M.	E. E., Soph.	1-2	Wakita
Lookabaugh, Guy M.	C. and M., Fr.	1-2	Watonga
Lookabaugh, Lyda	S. and L., Fr.	1-2	Stillwater
Loosen, E. M.	C. annd M., Fr.	1-2	Okarche
Loosen, Isabel	H. E., Fr.	1-2	Okarche
Loosen, M. H.	Sec.	1-2	Okarche
Loosen, Vilette	Sec.	1-2	Okarche
Lowe, Fred D.	Edu., Fr.	1-2	Greenfield
Lowrance, C. O.	Agri., Fr.	1-2	Sulphur
Lowery, Oscar L.	V. A.	2	Tecumseh
Lucas, D. W.	Sec.	1-2	Skiatook
Luckert. C. John	Sec.	1-2	Enid
Ludwick, Russell W.	Agri., Soph.	1-2	Keifeton
Luke, Frances	H. E , Fr.	1-2	Ardmore
Luman, H.	V. A.	1-2	Erick
Lyne, Geo. P.	Special	1-2	Tishomingo
McAdams, Claude	Trades	SS-1-2	Muskogee
McAdams, Thos. P.	C. and M., Fr.	1-2	Stillwater
McArthur, Ruby	Bus.	SS-1-2	Perkins
McBrayer, S. L.	V. A.	2	Reed
McBride, Elmer L.	Edu.	SS-1-2	Stil'water
McClure, Aileen	Sec.	1-2	Stillwater
McConkey, Russell E.	Engr., Fr.	1-2	Lawton
McCoy, Vance	Sec.	2	Cowlington
McCoy, Wretta	Sec.	2	Cowlington
McCoy, Wesley	Bus.	1	Fort Cobb
McCracken, Walter S.	V. A.	1	Mena, Arkansas
McCroskey, Edith	Bus.	1-2	Stillwater
McCroskey, Francenah	C. and M., Soph.	SS-1-2	Stillwater
McCullough, Doris	Engr., Fr.	1-2	Tulsa
McCullough, L'oyd E.	Ch. E., Soph.	1-2	Collinsville
McDaniel, Anabel	Sec.	1-2	Blanchard
McDonald, Doris V.	Bus.	1-2	Stillwater

McDonald, Leon J.	Agri., Soph.		1-2	Lindsay
McDonald, Paul	Sec.		1-2	Stillwater
McDonald, T. S.	E. E., Soph.		1-2	Walters
McDowell, Carl	Agri., Fr.		1	Clinton
McFall, Wm. Kelso	Trades		1-2	Featherstone
McGaugh, Robert E. L.	V. A.		1-2	Woodville
McGee, Iris	H. E., Sr.		1-2	Wanoka
McGeorge, Ruth	Sec.	SS	1-2	Stillwater
McKee, Calvin	C. and M., Sr.		1-2	Stillwater
McKee, Loren	C. andn M., Fr.		1-2	Cooperton
McKee, Mrs. Theo.	Bus.		1-2	Stillwater
McKemie, Glen	Agri., Sr.	SS	1-2	Coalgate
McKemie, Hazel	H. E., Fr.		1-2	Coalgate
McKenzie, Zaida E.	H. E., Fr.		1-2	Shawnee
McKnight, E. F.	Engr., Fr.		1-2	Stillwater
McKnight, Goldie	Edu., Sr.	SS	1-2	Stillwater
McLain, Lewis	Bus.		2	Cooperton
McLimans, T. C.	V. A.		1-2	Perry
McLish, Glen R.	C. and M., Fr.		1-2	Minco
McMillan, M. B.	C. and M., Jr.		1-2	Stillwater
McMinn, Thadius A.	V. A.		1-2	Jester
McNabb, Ruth	Edu., Jr.		1	Sallisaw
McNeely, O. D.	M. E., Sr.		1-2	Goltry
McPeek, Mark	Sec.		1	Mulhall
McPherson, Walter H.	Bus.		1-2	Pawhuska
McQuown, Lattie	Sec.		1-2	Stillwater
McTaggart, Ernest	C. annd M., Sr.		1-2	Stillwater
McWethy, Mead	V. A.		1-2	Guthrie
McWhorter, Nettie	Edu., Fr.	SS	1-2	Soper
Madamba, George	Sec		2	Guezon, Philippine Islands
Madden, Llewellyn	V. A.		1-2	Curtis
Mahaffey, Katie Lee	H. E., Soph.	SS	1-2	Stillwater
Mahoney, George	V. A.		1-2	Walters
Mahoney, Irene	Music, Fr.		1-2	Newkirk
Main, Francis E.	E. E., Soph.		1	Stillwater
Main, Lois	Sec.		1-2	Stillwater
Malone, Harold Lee	Engr., Fr.		1-2	Roff
Maness, Lillie	Sec.		2	Alexander
Maness, Velma	Sec.	SS	1-2	Stillwater
Maness, Allen	Engr., Fr.		1	Downs, Kansas
Maness, Verne L.	Sec.		1-2	Stillwater
Manney, Jerry	Bus.		1-2	Dewar
Manning, Clarence	V. A.		1	Davis
Manning, Jeremiah A.	V. A.		1-2	Calumet
Markland, James D.	C. and M., Fr.		1-2	Stillwater
Markland, Waldo C.	C. and M., Fr.	SS	1-2	Stillwater
Markwell, V. H.	Sec.		1	
Marlin, Lexie E.	S. and L., Fr.		1-2	Pawnee
Maroney, Mildred	Sec.	SS	1-2	Stillwater
Marquess, J. C.	Sec.		1-2	Macomb
Martin, Baird	Sec.		1	McAlester
Martin, A. P.	Sec.		2	Idabel
Martin, Frank	Edu., Sr.	SS	1-2	Stillwater
Martin, Ola	Bus.		1	Hominy
Martin, Leroy	Sec.		2	Stillwater
Martin, Geo. W.	Sec.	SS	1	Bennington
Marx, Harold B.	Engr., Fr.		1-2	Pawnee
Mazzey, P. F.	V. A.		1-2	Ralston
Mathews, J. C.	V. A.		1	Ardmore
Mathis, Lester M.	Sec.		1-2	Stillwater
Matkin, Geo. H.	Engr., Fr.		1-2	Stillwater
Mathies, R. C.	C. and M., Soph.		1-2	Mulhall
Mauch, Marie	Sec.		1	Chandler
Mauzey, Alta	Bus.		1	Geneoe
Maxwell Clifford	Sec.		1-2	Cowlington
Mayo, R. W.	Sec.		1	Sallisaw
Mears, Richard V.	Arch., Fr.		1	Bartlesville
Meegan, Dick	Sec.		1	May
Meeker, J. R.	C and M., Jr.		1	Temple
Meigs, E. B.	Sec.		1	Hulbert
Melrose, Alfred	Trades		1	Carmen
Melton, Mark	Sec.		2	Enid
Merrifield, Martha	H. E., Jr.		1-2	Enid
Merrill, Roy R.	C. and M., Soph.		1-2	Stillwater
Merritt, Cecil	H. E., Fr.		1-2	Medford
Merritt, Hazel Dell	H. E., Soph.	SS	1-2	Medford
Merveldt, Carl	Sec.		1	Okrache
Metcalf, Sidney	Engr., Fr.		1-2	Chickasha

Methvin, Frank B.	V. A.	2	Anadarko
Meyer, Arthur	V. A.	1-2	Hunter
Meyer, Joe E.	Engr., Fr.	1-2	Prague
Michael, Edgar	A. E., Soph.	2	Deer Creek
Middlebusher, Mabel	Bus.	2	Stillwater
Middleton, Glen	Trades	1-2	Oklahoma
Miclitz, Gustav	V. A.	1-2	Garber
Miller, Gladys	Sec.	1-2	Perkins
Miller, Willis C.	V. A.	1-2	League City, Texas
Miller, William C.	V. A.	1-2	Temple
Mills, William A.	V. A.	2	Oakwood
Miner, W. D.	Trades	1	Kremlin
Minor, Hugh L.	V. A.	1	Altus
Mitchell, A. Alice	Sec.	2	Morrison
Moore, Ethel	H. E., Fr.	1-2	Stigler
Mitchell, Glenn L.	Trades	SS-1-2	Enid
Mitchell, F. Drue	V. A.	1	Bluekacket
Mitchell, Ross	C. and M., Fr.	1-2	Bluejacket
Mobley, G. F.	Sec.	1-2	Ardmore
Moberly, Marvin	Bus.	2	Eufaula
Moffatt, Hal	Sec.	1-2	Stillwater
Mohler, Fred O.	V. A.	1-2	Wakita
Molacek, Thos. E.	C. and M., Soph.	1-2	Sulphur
Moore, Charles S.	S. and L., Fr.	1-2	Waukomis
Moore, Echel	H. E., Fr.	1-2	Pawnee
Moore, Geo. A.	S. and L., Fr.	1-2	Pawnee
Moore, John E.	A. E., Soph.	1-2	Muskogee
Moore, John F.	Sec.	1-2	Lawton
Moore, S. Houston	Agri., Fr.	2	Renfrow
Moore, Nellie D.	H. E., Jr.	1-2	Waukomis
Moore, Scott B.	V. A.	1-2	Edmond
Moore, Wm. F.	Sec.	1-2	Calumet
Moore, Winnifred (Hunt)	Bus.	1	Stillwater
Mooring, Ben F.	V. A.	1-2	Wagoner
Moorman, Valera	Edu., Fr.	1-2	Stillwater
Morgan, Roy C.	Agri., Jr.	1-2	Stillwater
Morgan, Wm. A.	V. A.	1-2	Blanchard
Morgan, H. H.	Trades	1	Ponca City
Morrell, Chas.	Bus.	1-2	Hominy
Morris, Robert E.	C. and M., Fr.	1	Ryan
Morris, Pauline R.	Edu., Jr.	1-2	Stillwater
Morris, Robert T.	V. A.	1-2	Idabel
Morris, Samuel E.	C. and M., Fr.	1-2	Opal
Morris, Tom	Sec.	2	Holly Creek
Morrison, Willis W.	Agri., Soph.	2	Tulsa
Morrow, A. A.	Trades	1-2	Stone Bluff
Morse, Joe S.	V. A.	2	Brady, Texas
Moseley, Josie	H. E., Jr.	1-2	Stillwater
Mossler, Flora	Sec.	1-2	Stillwater
Mossler, Grace	Special	1-2	Stillwater
Mountcastle, Grace	Special	1	Muskogee
Moyer, Dorris	Bus.	2	Edmond
Moyer, Earl	V. A.	1-2	Edmond
Mulvey, M. O.	Sec.	1-2	Yukon
Munday, Lena	Sec.	1-2	Ripley
Murphy, Eva	Sec.	SS-1-2	Orlando
Murphy, Osa	V. A.	1-2	Apache
Murray, Fulton	S. and L., Fr.	1-2	Coalgate
Murray, Glen R.	Trades	2	El Reno
Murray, Owen	S. and L., Fr.	1-2	Coalgate
Murray, M. B.	Sec.	1-2	Tishomingo
Murray, Viola	H. E., Fr.	1-2	Drummond
Music, Fairie	V. H. E.	1-2	Stillwater
Music, Wm. T.	V. A.	1-2	Stillwater
Myers, Geo. M.	E. E., Jr.	1	Shawnee
Nash, O. P.	Agri., Sr.	1-2	Paden
Neaves, Eunice	H. E., Sr.	SS-1-2	Tryon
Nehrbass, H. C.	V. A.	1-2	Billings
Nehrbass, P. J.	V. A.	1-2	Billings
Nelson, Bendetta	Sec.	SS-1-2	Stillwater
Nelson, Billie B.	Agri., Jr.	1-2	Stillwater
Nelson, Fines	V. A.	1	Wapanucka
Nelson, Henry J.	Sec.	1-2	Granite
Nelson, I. H.	S. and L., Soph.	1-2	Stillwater
Nelson, Okey	Bus	2	Stillwater
Nelson, Ray	Sec.	1-2	Ames
Nelson, Raymond	V. A.	1-2	Coalton
Neumeyer, Eunice	H. E., Soph.	1-2	Medford

Newberry, R. L.	V. A.	1-2	Stillwater
Newland, Nora	Special	2	Glencoe
Newlin, Wm.	Sec.	1-2	Bixby
Newton, Roy C.	Ch. E., Jr.	SS-1-2	Stillwater
Nickell, Claude O.	Sec.	2	Lookeba
Nickolson, Bonnie	Agri., Fr.	1-2	Muskogee
Nickolson, R. O.	Trades	2	Galveston
Norris, Carl T.	Engr., Fr.	1-2	Cache
Norris, John G.	Edu., Jr.	1-2	Cherokee
Norris, Theo.	Engr., Fr.	1-2	Pawnee
Nowlin, I. E.	Trades	1-2	Elmore
Nowlin, Ona	Special	2	Elmore
O'Conner, Bernice	Sec.	1-2	Sparks
O'Conner, Nolan	Sec.	1-2	Sparks
Offield, Ivan	Sec.	1-2	Oklahoma
Offield, John F.	Sec.	1-2	Oklahoma
Oldham, Roy	Sec.	1-2	Stillwater
Oliphant, Wheeler	Sec.	1	Chandler
Olive, Roy	V. A.	1-2	Rufe
Oliver, Cecil D.	Trades	1	Springer
Oltmanns, Barbara	S. and L., Soph.	1	Gotebo
Ormsby, Leroy F.	V. A.	1-2	Stillwater
Orner, Zephyr	Sec.	1-2	Goodnight
Osborn, Fred	Trades	1-2	Stillwater
Osborn, John Lee	V. A.	1	Harrisburg, Arkansas
Outhier, R. C.	Agri., Fr.	1-2	Okeene
Overcast, Claude R.	V. A.	1-2	Wesley
Overholt, Thelma	Bus.	SS-1	Stillwater
Overstreet, Russell	C. and M.	2	Cowlington
Pace, Elbert E.	Agri., Fr.	1-2	Welch
Page, Chas. V.	Engr., Fr.	2	Douglas
Pagels, Franklin	Sec.	1	El Reno
Pannell, John	Agri., Fr.	1-2	Warner
Park, H. Clay	Engr., Fr.	SS-1-2	Stillwater
Park, Mrs. H. C.	Special	SS-1	Stillwater
Parker, Mary	Sec.	1	Stillwater
Parker, Una	Sec.	SS-1-2	Stillwater
Parmen, Vera	H. E., Soph.	1-2	Stillwater
Parrott, Ethel M.	H. E., Fr.	1-2	Wellston
Patchett, John Robert	Trades	SS-1-2	Lenapah
Patterson, Mary Emma	H. E., Fr.	1-2	Walters
Patton, Dick	Sec.	1	Muldrow
Patton, R. G.	Sec.	1	Muldrow
Patton, Willie	Sec.	1-2	Stillwater
Paxton, L. Richard	Agri., Fr.	1-2	Jester
Payne, Nora	Bus.	1-2	Cushing
Payne, Winnie	Bus.	1	Cushing
Pearce, Carl	C. and M., Fr.	1-2	Cushing
Peaster, O. H.	Sec.	1	Wynnewood
Peek, Charlotte	Sec.	1-2	Stillwater
Peek, Dorothy	Sec.	1-2	Stillwater
Pees, Clinton C.	V. A.	1-2	Miami
Pendleton, Lee	V. A.	1-2	Sulphur
Penquite, Robert	Agri., Soph.	1-2	Chickasha
Penton, Leroy L.	V. A.	1-2	Gainesville, Texas
Penturf, Clarence	V. A.	1-2	Blue Jacket
Percival, Chas. A.	M. E., Jr.	1-2	Stillwater
Percy, Fred E.	Agri., Sr.	1-2	Thomas
Perkins, John	V. A.	1-2	Luther
Perrin, Roy	V. A.	2	Reed
Perry, Jean	Trades	2	Wynnewood
Perry, Lewis S.	Agri., Fr.	1-2	Grove
Perryman, V. C.	Bus.	1-2	Eastland, Texas
Petete, Chas. E.	V. A.	1-2	Holdenville
Petty, Bernice	Agri., Fr.	1-2	Oklahoma
Petty, Blanche	Agri., Soph.	1-2	Oklahoma
Petty, Julia	Edu., Fr.	1-2	Oklahoma
Phy, Arthur R.	V. A.	1-2	Tulsa
Pickett, Grady C.	V. A.	2	Prague
Pipegrass, R. M.	V. A.	1-2	Alderson
Pile, Rilla	Edu., Fr.	1-2	Parsons, Kansas
Pitzer, Florence	Edu., Jr.	SS-1-2	Stillwater
Pitzer, Sydnie	Sec.	SS-1-2	Stillwater
Pitzer, Mary	Sec.	SS-1-2	Stillwater
Pledger, John S.	V. A.	1-2	Norman
Pock, Ben F.	Sec.	1-2	Ripley
Pock, Geo.	Sec.	1-2	Ripley

Pointer, Sam	C. and M., Fr.	1	Sallisaw
Poffenberger, Max	Bus.	1	Stillwater
Poole, E. M.	Sec.	1	Fort Cobb
Pope, Alonzo J.	V. A.	2	Hugo
Pope, Troy O.	Trades	1	Hominy
Potter, Hu'da	H. E., Sr.	1-2	Stillwater
Potter, Marvin S.	Sec.	1-2	Putnam
Potts, H. C.	Agri., Fr.	2	Headrick
Powell, Clarence	Bus.	1	Pond Creek
Powers, Leila	Sec.	2	Ripley
Prater, Richard C.	S. and L., Fr.	2	Hobart
Pratt, Roy O.	C. and M., Fr.	1-2	Enid
Presburg, Georgia	Bus.	1	Hominy
Price, John S.	Bus.	1	Jacksboro
Priest, Clara	H. E., Fr.	SS-1-2	Sabetha, Kansas
Pruett, Earl	Agri., Fr.	1-2	Reed
Pruett, Haskell	Agri., Fr.	1-2	Reed
Pugh, Arla F.	Edu., Fr.	1-2	Lahoma
Pugh, Orlo	Sec.	1-2	Ardmore
Pugh, Marcus	Sec.	1-2	Ardmore
Pulkrabek, J. W.	V. A.	1-2	Stillwater
Pul'iam, Gordon	C. and M., Soph.	1-2	Cushing
Pullin, Benjamin	V. A.	1-2	Hazel
Purse, Marguerite	Bus.	SS-1-2	Stillwater
Purviance, Nell	Sec.	1-2	Guthrie
Quigg, Quinten	Sec.	1-2	Bixby
Quinn, Edwin S.	Engr., Fr.	1-2	Tulsa
Race, Melvin	C. and M., Fr.	1-2	Shawnee
Ragan, Joseph T.	Agri., Fr.	1-2	Vinita
Ramey, Glenn C.	Agri., Soph.	1-2	Mooreland
Ramsby, Homer	Trades	1	Muskogee
Ramsby, Howard	Sec.	1	Muskogee
Randolph, Robert R.	Agri., Jr.	SS-1-2	Fresno, California
Ransom, Donica	Bus.	1	Stillwater
Rapp, Miriam H.	H. E., Jr.	1-2	Watonga
Rasmussen, Jerd M.	Sec.	2	Haywood
Rasmussen, Marie	Sec.	1-2	Haywood
Ray, Wilber T.	C. and M., Fr.	1-2	Stillwater
Records, Geneva	H. E., Fr.	1-2	Okeene
Redmond, Affie	Sec.	SS-1-2	Stillwater
Redmond, Cecil	Sec.	SS-1-2	Stillwater
Reed, Mrs. Effie	Bus.	SS-1-2	Stillwater
Reed, G. Nathan	S. and L., Soph.	1-2	Stillwater
Reed, Carl	V. A.	1	Temple
Reeder, D. F.	Agri., Soph.	1-2	Bison
Reichman, Curtis	C. and M., Fr.	2	Stillwater
Reichman, Ida	S. and L., Jr.	1-2	Stillwater
Reid, Lynn A.	Sec.	1-2	Stillwater
Reid, Roy	Special	1	Stillwater
Reid, O'Neil	Sec.	1-2	Morrison
Remington, Roy	Sec.	1	Avery
Renfrow, Clint L.	Sec.	1	Spur, Texas
Renfrow, Henry F.	Engr., Fr.	1-2	Durant
Rey, Walter A.	Engr., Fr.	1-2	Oklahoma
Reynolds, Jack H.	V. E.	1-2	Bokhoma
Reynolds, Virgil	Arch., Fr.	1	Anadarko
Rhoades, Lee	Sec.	1-2	Geronimo
Rice, Ethel A.	Special	1	Bentonville, Arkansas
Rice, Lewis W.	C. and M., Fr.	1-2	Tulsa
Rice, Onal W.	V. A.	1-2	Apache
Richards, Amyle	Sec.	2	Stillwater
Richards, Cormileta	Sec.	1-2	Stillwater
Richardson, Blanche	Special	1	Stillwater
Richardson, Cecil	Sec.	1-2	Clarita
Richardson, Gladwell	Sec.	1-2	Clarita
Richardson, Florence	H. E., Fr.	SS-1-2	Stillwater
Richardson, E. L.	V. A.	2	Madill
Riddle, Wm. R.	Bus.	1	Fairland
Riley, Agnes	Bus.	1-2	Pawhuska
Riley, Jane (Wright)	Bus.	1	Pawhuska
Rinehart, Mabelle	H. E., Soph.	1-2	Ramona
Rinehart, Maud	H. E., Soph.	1-2	Ramona
Rios, L. Jose	Sec.	1-2	Agana, Island of Guam
Robberson, Price A.	C. and M., Soph.	1-2	Ringling
Robbins, Wynona	Special	1	Dawson
Roberts, Ed	Sec.	1-2	McLoud
Roberts, David E.	V. A.	2	Hanna

Roberts, Roy M.	V. A.	1	Norman
Roberts, Julia (Hurley)	Sec.	1	Hereford, Texas
Robertson, Bryon W.	Bus.	1-2	Stillwater
Robertson, Lola	Bus.	SS-1-2	Stillwater
Robertson, Marguerite	H. E., Fr.	1-2	Apache
Robertson, Merle	Sec.	1-2	Apache
Robertson, Philo R.	Bus.	1	Stillwater
Robertson, Wm. F.	Sec.	2	Tahlequah
Robinson, Maurice	Sec.	1-2	Hominy
Robinson, Victor V.	V. A.	2	Mena, Arkansas
Roddy, Earl T.	C. and M., Fr.	1	Fort Cobb
Roeser, Wm. F.	Engr., Fr.	1-2	Peoria, Illinois
Rogers, Eugene L.	V. A.	1-2	Colony
Rogers, Taylor	Sec.	1-2	Iowa Park, Texas
Rogers, Nina S.	Edu., Fr.	1	Stillwater
Rogers, Thomas A.	Bus.	1	Iowa Park, Texas
Rogers, S. G.	Special	2	Stillwater
Rolette, J. J.	C. and M., Fr.	1	Drumright
Rollins, Geo. C.	V. A.	SS-1-2	Haskell
Roope, Marguerite	H. E., Jr.	1-2	Chandler
Rosario, R. Juan	Sec.	1-2	Agana, Island of Guam
Rottmayer, Max	V. A.	1-2	Knowles
Rouse, Edna	Sec.	1-2	Coyle
Rouse, Elva	C. and M., Fr.	1-2	Pleasant Valley
Routon, James	V. A.	1	Moore
Rowley, S. E., Jr.	Engr., Fr.	1-2	El Reno
Rumbach, Edna	Special	2	Stillwater
Rumbach, Pearl	Special	2	Stillwater
Rusher, Harold	M. E., Soph.	1	Yale
Rust, Fern	Bus.	1-2	Stillwater
Ryan, Edna B.	Special	2	Stillwater
Ryle, Harold L.	C. and M., Fr.	1-2	Walters
Ryle, Warren W.	V. A.	2	Hinton
Sablan, Ramon M.	Sec.	1-2	Agana, Island of Guam
Sacket, Francis H.	V. A.	2	Aline
Sackett, James S.	V. A.	1-2	Aline
Sadlo, Edward	E. E., Jr.	1-2	Prague
Sadlo, Geo. W.	C. and M., Fr.	1-2	Prague
Sale, Robert B.	C. and M., Fr.	1-2	Shawnee
Sale, Claude W.	C. E., Soph.	1-2	Shawnee
Sanford, John T.	Sec.	1-2	Pawnee
Sanger, Stephen	H. E., Fr.	2	Drumright
Sapp, U. S.	Engr., Fr.	1	Doxey
Sarver, Miriam	Edu., Fr.	1-2	Lamont
Sasser, Floyd	V. A.	1	Purcell
Sautbine, L. R.	V. A.	1-2	Oklahoma
Savage, Edna	Sec.	1-2	Hollis
Savage, Eunice	H. E., Fr.	1-2	Hollis
Savoy, E. J.	V. A.	1-2	Beaver
Sawyer, F. D.	Trades	1-2	Pawnee
Scarth, W. R.	V. A.	1-2	Higgins, Texas
Schacher, Clara	Sec.	SS-1-2	Stillwater
Schatz, Marie	V. H. E.	1-2	Stillwater
Schatz, Ted	Sec.	1-2	Stillwater
Schedler, Leah	Sec.	2	Stillwater
Schedler, E. W.	C. and M., Fr.	1-2	Stillwater
Schuelein, Fred	Trades	2	Kremlin
Schwarz,	Trades	1	Webb City
Schulze, Paul C.	V. A.	2	Wann
Scott, Christian B.	Sec.	1-2	Meno
Scott, Forrest	Trades	2	Meno
Scott, Nellie	Sec.	1-2	Meno
Scott, James L.	Sec.	1	Okmulgee
Scott, May	H. E, Jr.	1-2	Sapulpa
Scroggs, Wm. A.	C. and M., Soph.	1-2	Stillwater
Seabach, Clarence	Agri., Jr.	1-2	Blackwell
Seaney, George	V. A.	1	Erick
Searcy, Carl G.	Sec.	2	Yale
See, Iva A.	H. E., Jr.	1-2	Tonkawa
Selle, Robert M.	Sec.	1	Stillwater
Seikel, Frances M.	V. H. E.	2	McLoud
Sieglinger, Olga	Sec.	2	Stillwater
Shandlin, Roscoe M.	C. and M., Soph.	1-2	Medford
Shannon, L. D.	C. and M., Fr.	1-2	Perkins
Shannon, Raymond	C. and M., Jr.	1-2	Perkins
Shattuck, Mary	H. E., Soph.	1-2	Guymon
Shattuck, Ollie	H. E., Jr.	1-2	Guymon
Shaw, C. C.	C. E., Soph.	1-2	Wewoka

Shaw, Dollie	Sec.	SS-1-2	Morrison
Shaw, May	S. and L., Fr.	SS-1-2	Morrison
Sheets, John	V. A.	1	Maysville
Shelton, L. C.	Agri., Jr.	SS-1-2	Gould
Shelton, Mrs. L. C.	S. and L., Jr.	SS-1-2	Gould
Shepard, Edna	Bus.	1-2	Stillwater
Shepler, G. W.	Engr., Fr.	1-2	Lawton
Sherman, Elsie	Sec.	1-2	Mulhall
Sherrard, Ella Lois	H. E., Fr.	SS-1-2	Orlando
Sherrard, Olive	H. E., Jr.	1-2	Centerville, Iowa
Shields, Wm.	Bus.	1-2	Stillwater
Shimizu, Antonia A.	Sec.	1-2	Agana, Island of Guam
Shippy, Loton	Sec.	1-2	Wister
Shirley, Gladys	Music, Fr.	1-2	Apache
Shirley, Emory G.	Ch. E., Soph.	1-2	Apache
Short, C. Y.	V. A.	1	Burbank
Shrader, Chas. W.	Trades	1-2	Cache
Shunatona, Baptiste B.	Sec.	2	Pawnee
Shurteff, Mrs. Kathriny	Bus.	2	Prue
Sibley, Harold	Sec.	1	Okemah
Silkey, Raymond C.	V. A.	2	Pryor
Simonson, M. L.	Sec.	1	Loveland
Simpson, C. C.	V. A.	2	Golden
Sinclair, A. S.	Trades	2	Marshall, Texas
Sittell, Clemnetine	H. E., Fr.	1-2	McAlester
Sittell, Virgil	Engr., Fr.	SS-1-2	McAlester
Skaer, Opal	H. E., Jr.	1-2	Augusta, Kansas
Skaer, Pauline	Edu., Fr.	1-2	Augusta, Kansas
Skinner, J. H.	V. A.	2	Meno
Slief, Alphonzo	Trades	2	Cheyenne
Sloan, Fay	Sec.	1-2	Mountain Park
Small, H. Van	Sec.	1-2	Okemah
Smart, Faye	Bus.	2	Stillwater
Smart, Harold	Engr., Fr.	1-2	Helena
Smart, Ruth	Sec.	1	Crowder
Smelser, Carl A.	C. and M., Fr.	1-2	Cooperton
Smith, Aden	Sec.	1	Skedee
Smith, Allen	Sec.	1	Antlers
Smith, Anna	Sec.	1	Stillwater
Smith, Basil	Sec.	1-2	Avery
Smith, Carl H.	Engr., Fr.	1	Stillwater
Smith, Earl L.	V. A.	1	Doxey
Smith, Elvin	V. A.	1	Marlow
Smith, Gunner	Bus.	1-2	Bennington
Smith, Harry	C. and M., Fr.	1	Stillwater
Smith, Homer	Sec.	SS-1-2	Pennington
Smith, Icy	Special	1-2	Grandfield
Smith, John Allen	V. A.	2	Owasso
Smith, John E.	Trdaes	1-2	Doxey
Smith, J. M.	C. and M., Fr.	1-2	Grandfield
Smith, J. R. A.	Sec.	2	Moyer
Smith, Lela	Edu., Soph.	1-2	Grandfield
Smith, Louella	Bus.	1-2	Eldorado
Smith, Mildred	H. E., Fr.	1-2	Stillwater
Smith, Norman J.	Sec.	1-2	Skedee
Smith, Noland F.	Sec.	1	Canadian
Smith, Paul M.	Engr., Fr.	2	Oklahoma
Smith, Pearl (Denny)	Bus.	SS-1	Stillwater
Smith, O. F.	Sec.	1-2	Cowlington
Smith, Sterling V.	V. A.	1-2	Purcell
Smith, Vada	Bus.	1-2	Cleora
Smith, W. C.	Agri., Sr.	1-2	Omega
Sneary, Gladys	C. and M., Fr.	1-2	Driftwood
Sneary, Grace	Edu., Sr.	SS-1-2	Driftwood
Snider, Beulah	C. and M., Fr.	SS-1-2	Lindsay
Snoddy, Anna Mary	Sec.	1-2	Coalgate
Snyder, Chester K.	V. A.	2	Stillwater
Snyder, S. B.	Sec.	2	Salt Fork
Soderstrom, Mrs. E. D.	Special	1	Stillwater
Soule, Clayton E.	E. E., Jr.	1-2	Nowata
Sould, E. F.	Agri., Fr.	SS-1-2	Beggs
Sourjohn, Will	V. A.	1-2	Moody
Souter, Netabel	S. and L., Fr.	1	Magnolia, Arkansas
Stuter, Prentis	Sec.	2	Pawhuska
Southerland, Basil	Sec.	1-2	Alex
Spaulding, J. S.	Special	1	Muskogee
Spencer, Eunice	Sec.	SS-1-2	Stillwater
Spencer, Leila	Sec.	1-2	Stillwater
Spencer, Lilly	H. E., Soph.	1-2	Stillwater

Spicer, Verda	Bus.		1	Stillwater
Spilman, R. F.	Special		2	Lockney, Texas
Springer Geo. C.	Sec.		1-2	Spur, Texas
Springer, Minnie Lee	Edu., Fr.		1-2	Spur, Texas
Springer, Montana	Special		1-2	Stillwater
Springer, Raleigh F.	Sec.		1	Aspermont, Texas
Springer, Noel E.	Sec.		1	Aspermont, Texas
Spurgeon, Faye	Sec.		1-2	Stillwater
Spurgeon, Hazel	Bus.		1-2	Stillwater
Stacy, P. C.	Sec.		2	Chickasha
Stacy, Wm. A.	V. A.	SS-1	1-2	Blocker
Stafford, Fred T.	A. E., Soph.		1-2	Pawnee
Stafford, Joe D.	Agri., Soph.		1-2	Stillwater
Staggs, Grace	Bus.		1	Stillwater
Stahmer, Geo. E.	V. A.		1-2	Enid
Stallard, Fred M., Jr.	Special		1-2	Stillwater
Stansberry, Hubert	Agri., Fr.		1-2	Mazie
Staples, Robert L.	V. A.		1-2	Bristow
Starke, L. B.	C. and M., Sr.		1	Stillwater
Starke, Hazel	Bus.		1	Stillwater
Starr, Chas.	Agri., Fr.		1-2	Fay
Staaton, Glen	Sec.		1-2	Agra
Stavely, Charlie	Agri., Fr.		1-2	Shawnee
Steel, James	V. A.		1-2	Glenn
Steele, M. G.	C. and M., Fr.		1-2	Whiteagle
Steele, Jeanne	Edu., Soph.		1-2	Whiteagle
Steele, Verne	H. E., Fr.		1-2	Whiteagle
Steelman, D. B.	C. and M., Fr.		1-2	Ninnekah
Stevens, Carl A.	M. E., Jr.		1-2	Quapaw
Stewart, Clarence	Special		1-2	Tulsa
Stewart, John F.	C. and M., Fr.		1-2	Minco
Stewart, Geo. W.	Sec.		1	Ripley
Stewart, H. L.	V. A.		1-2	Woodward
Stewart, Myrtle	Sec.	SS-1		Ripley
Stiles, Mrs. Lottie	Edu., Sr.	SS-1-2		Stillwater
Stinson, Elzie O.	Agri., Fr.		2	Hammon
Stinson, Wright	Special		1-2	Mount Vernon
Stockton, Chester	V. A.		1-2	Okemah
Stokes, Brice	C. and M., Fr.		1-2	Idabel
Stone, B'air H.	M. E., Soph.		1-2	El Reno
Stone, Marie	H. E., Soph.	SS-1-2		Clinton
Stout, Alice	Sec.		1-2	Stillwater
Stout, Ruth	Sec.		1-2	Stillwater
Stout, W. M.	Trades		1-2	Stillwater
Strange, D. Douglass	Sec.		1-2	Sentinel
Strange, Gordon	Trades		1-2	Sentinel
Straughen, Mrs. A. M.	Bus.		1	Stillwater
Straughen, Florence	H. E., Soph.		1-2	New Orleans, Louisiana
Strickland, Edgar L.	Special	SS-1-2		Hollis
Strozier, C. A.	Engr., Fr.		1-2	Red Oak
Stubblefield, E. E.	C. E., Jr.		1-2	Pawhuska
Sturgis, Alden	Ch. E., Soph.		1-2	Guthrie
Sturgis, Lela	H. E., Fr.	SS-1-2		Guthrie
Sturgis, Nelson	S. and L., Fr.	SS-1-2		Guthrie
Stuteville, O. H.	Sec.		1-2	Alfalfa
Sugg, Herbert	Agri., Soph.		2	Lone Wolf
Sullivan, Lyle C.	V. A.		1	Ada
Sullivan, Claude S.	Agri., Soph.		1-2	Okmulgee
Sullivan, Doyle	C. and M., Fr.		2	Okmulgee
Sullivant, Ruby	S. and L., Soph.		1-2	Norman
Suman, Susie	Sec.		2	Stillwater
Summers, Floyd	Engr., Fr.		1-2	Eldorado
Sutton, John	Sec.		1	Prague
Swanson, J. L.	Bus.		1-2	Roosevelt
Sweet, Phyllis	Sec.		1	Buffalo
Swim, Elmer	Engr., Fr.	SS-1-2		Stillwater
Swim, Leslie	C. E., Sr.		1-2	Stillwater
Swim, Paul M.	C. E., Sr.		1	Stillwater
Swim, Mrs. Gertrude	Special	SS-1		Stillwater
Swing, E. C.	V. A.		1-2	Elk City
Swinney, Robert	Sec.		1	Cement
Swisher, Lavada	Sec.		1	Stillwater
Symns, E. W.	Engr., Fr.		1-2	Ingersoll
Tabor, Paul S.	E. E., Soph.		1-2	Stillwater
Tandy, Estelle	Special		2	Columbia, Missouri
Tankersley, Arlyn	Sec.	SS-1-2		Stillwater
Tankersley, Theo.	Sec.		1	Stillwater
Tate, Bert	Trades		1-2	Wynnewood

Tate, Marion	Trades	1-2	Orlando
Tatum, H. A.	C. and M., Fr.	1-2	Stillwater
Tatum, Mary	S. and L., Fr.	1-2	Stillwater
Taylor, Alma	Sec.	SS-1-2	Stillwater
Taylor, Clarence	Agri., Soph.	1-2	Stillwater
Taylor, Fred L.	C. and M., Fr.	1-2	Chandler
Taylor, Geo. J.	V. A.	1-2	Caney, Kansas
Taylor, Geo. E.	V. A.	2	Wright
Taylor, Lilah	Bus.	1	Stillwater
Taylor, Newcomb	Sec.	1-2	Ardmore
Tharp, Thelma	Sec.	1-2	Guymon
Tennyson, Lloyd E.	S. andn L., Fr.	1	Pawnee
Terrill, Clara	Bus.	2	Stillwater
Terrill, Wyley	Sec.	1-2	Spiro
Terrill, Omer	Sec.	1	Oilton
Terry, Lee R.	Edu., Jr.	1-2	Glenn
Tesone. Silver	A. E., Soph.	1-2	Wilburton
Tharp, Thelma	H. E., Fr.	SS-1-2	Yale
Tharp, Merle L.	Sec.	1-2	Yale
Theilen, Freida	Sec.	1-2	Enid
Thomas, Edna	Sec.	1-2	Stillwater
Thomas, Frank D.	C. and M., Fr.	1-2	Whitewright, Texas
Thomas, Harley O.	Agri., Sr.	1	Tampico, Illinois
Thomas, Willie F.	V. A.	1-2	Hoffman
Thomason, Claude F.	Engr., Fr.	1	Boynton
Thompson, Lola	H. E., Fr.	1-2	Helena
Thompson, B. D.	S. and L., Fr.	1-2	Mangum
Thompson, C.	Bus.	2	Shamrock
Thompson, Mrs. Linnie	V. H. E.	2	Stillwater
Thompson, Marguerite	H. E., Soph.	1-2	Watonga
Thompson, Norma E.	H. E., Soph.	1-2	Oklahoma
Thompson, O. H.	V. A.	1-2	Hollis
Thompson, Stella	Sec.	1-2	Ralston
Thornton, Anna Garner	Special	1	Stillwater
Thornton, Leland	Special	2	Ranger, Texas
Thorp, Oakley Glen	Engr., Fr.	1	Broken Bow
Thorp, W. D.	Sec.	2	Selma
Tilton, Richard T.	Agri., Sr.	1	Nardin
Tims, V. E.	Engr., Fr.	1-2	Paden
Todd, Sidney	Sec.	1-2	Tulia, Texas
Toler, Geo.	Engr., Fr.	1-2	Pawnee
Townsend, C. V.	Sec.	1-2	Vici
Townsend, H. F.	V. A.	1	Burneyville
Trautmann, Bertha	Sec.	SS-1-2	Stillwater
Traver, Mrs. Alice B.	Special	1	Stillwater
Trekell, L. W.	Agri., Sr.	1	Enid
Trevithick, Gladys Irene	Special	1-2	Stillwater
Trimble, Edwin	Sec.	1-2	Chickasha
Triplett, John C.	V. A.	SS-1-2	Tahlequah
Tripp, Ernest J.	Sec.	1-2	Stillwater
Tripp, Mrs. Alice	V. H. E.	1	Stillwater
Tripp, Neva	Sec.	1-2	Stillwater
Tripp, Thomas A.	Edu., Fr.	1-2	Stillwater
Trump, Maude	Edu., Fr.	1-2	Yale
Tucker, Alton	Trades	2	Amorita
Tucker, Bernice	Sec.	2	Reed
Tucker, Herbert	Trades	2	Amorita
Turner, Mildred	H. E., Jr.	1-2	Pawnee
Umbach, Wm. A.	V. A.	1-2	Indianapolis
Unzicker, Beulah	H. E., Jr.	1-2	Edmond
Upp, Chas. W.	Agri., Soph.	1	Chelsea
Vail, Ruth	H. E., Jr.	1-2	Featherstone
Van Beveren, Raymond B.	V. A.	1-2	
Vanderslice, J. R.	Sec.	1	Iona
Van Valkenburg, Heylin	H. E., Fr.	1-2	Deer Creek
Van Valkenburg, Lois	S. and L., Fr.	1-2	Deer Creek
Van Valkenburg, Norman	Agri., Fr.	1-2	Deer Creek
Van Winkle, Earl B.	Bus.	1-2	Coffeyville, Kansas
Van Zant, Winnie	V. H. E.	1-2	Chilocco
Varnum, J. E.	C. and M., Jr.	1-2	Earlsboro
Varnum, R. D.	Agri., Soph.	1-2	Earlsboro
Vassar, Ira D.	Trades	1	Tryon
Vermillion, Carrie	H. E., Fr.	SS-1-2	Perry
Vermillion, Evelyn	Bus.	1-2	Perkins
Vincent, Clausine	Sec.	1-2	Stillwater
Vincent, Mrs. G. W.	Special	1-2	Stillwater
Vincent, Robert	Sec.	1-2	Foyil

Vogel, Nira	H. E., Sr.	SS-1-2		Shawnee
Von Hagen, Verda	S. and L., Soph.	SS-1-2		Stillwater
Von Tungeln, L. A.	Sec.		1-2	Lone Wolf
Voyles, Carl	C. and M., Soph.	SS-1-2		Drumright
Wade, Arthur H.	V. A.		1-2	Blevins, Arkansas
Wade, Gertrude	H. E., Sr.	SS-1		Coyle
Waggoner, Arlington	Engr., Fr.		1	Amity, Arkansas
Wagner, Erle	Sec.		1	Cement
Wagner, Lorraine	Sec.		1	Cement
Wainscott, Lewis B.	C. and M., Fr.		1-2	Higgins. Texas
Walcott, Clint	C. E., Sr.		1	Olustee
Walden, Dewey H.	Sec.		1	Thackerville
Waldrop, O. M.	Sec.		1-2	Carter
Walker, Allen	Engr., Fr.		1-2	Ryan
Walker, Edith	H. E., Soph.	SS-1-2		Ryan
Walker, Arthur S.	V. A.		1	Kenton
Walker, Harvey H.	Engr., Fr.		2	Oklahoma
Walker, M. E.	Agri., Fr.	SS-1		Texhoma
Wall, Robert	Agri., Soph.		1	Agra
Wallace, J. C.	Sec.		1	Ardmore
Wallace, Jake	Sec.		1-2	Wright
Walsh, Claude L.	Sec.	SS-1-2		Los Angeles, California
Walsh, Mike E.	Sec.		1-2	Wister
Walter, Cleo	Bus.		1-2	Elk City
Walter, Marie	Bus.		1-2	Elk City
Ware, Veta	Bus.		1-2	Stillwater
Ward, Elvin B.	Sec.		1-2	Chester
Ward, Winston	V. A.		1	Hollis
Warren, Vera	H. E., Soph.		1-2	Olathe, Colorado
Warrington, Fred	V. A.		1	Miami
Washington, Claude	Sec.		1	Checotah
Watkins, Leone	Edu., Sr.		1-2	Helena
Watson, N.	V. A.		1	Chandler
Weatherford, Curtis L.	Sec.		1-2	Monroe
Weaver, Walter	C. and M., Fr.		1-2	Stillwater
Webb, Charles	V. A.		1	Oklahoma
Webb, Guy P.	Engr., Fr.		1-2	Wakita
Webb, Jennie	Sec.	SS-1-2		Orlando
Webb, Milton	Sec.		1-2	Terral
Webb, Rilla	Sec.		1-2	Terral
Weber, Katie	Bus.		1	Cordell
Weems, Walter	Bus.		1	Olustee
Weidman, Irl E.	C. and M., Fr.		1	Talala
Weiss, Mary	H. E., Jr.		1-2	Harrah
Welch, John P.	V. A.		2	Oglesby, Texas
Wells, Cecil G.	E. E., Soph.		1-2	Kingston
Welsh, Nyanzia	Sec.	SS-1-2		Ripley
Wertz, B. L.	C. and M., Jr.		1-2	Pauls Valley
West, C. J.	Trades		1-2	Nowata
West, Oscar V.	Sec.		1-2	Van Buren, Arkansas
West, Wm. B.	Sec.		1	Snyder
Westfall, Esther	Sec.	SS-1-2		Coyle
Wharton, Lola Carpenter	Sec.	SS-1		Stillwater
Wheeler, Blanche	C. and M., Fr.	SS-1-2		Stillwater
Wheeler, Mabelle	H. E., Sr.		1-2	Blackwell
Whillock, Numa J.	Sec.		2	Stillwater
Whipple, John B.	Edu., Sr.		1-2	Stillwater
Whitaker, Florence	S. and L., Fr.		1-2	Stillwater
Whitaker, Helen	H. E., Fr.		1-2	Stillwater
White, Aimee	Sec.		1-2	Vinita
White, Chester F.	Sec.		1-2	Cleo Springs
White, Ethel	V. H. E.		2	Page
White, Herbert J.	Agri., Fr.		1-2	McLoud
White, Louis	Sec.		1-2	Vinita
Whitehurst, Edith	H. E., Fr.		1-2	Oklahoma
Whiteside, Leighton	V. A.		1-2	Jumbo
Whitlock, Flossie	V. H. E.		1-2	Maramec
Whittenberg, Geo.	C. E., Jr.		1-2	Stillwater
Whyte, Paulyte V.	C. and M., Fr.		1	Okemah
Wickoff, Fred	Trades		1-2	Stillwater
Widener, Ray	Sec.		1-2	Jefferson
Wiedey, E. W.	Bus.		1-2	Okarche
Wikle, Geo. H.	Sec.		1	Sapulpa
Wilber, Herbert F.	C. and M., Jr.	SS-1-2		Guthrie
Wilcoxson, Clifford	Trades		1	Doxey
Wildman, Forrest	Engr., Fr.		1	Carnegie
Wiles, Alma	Bus.		1-2	Glencoe
Willard, Ray	Engr., Fr.		1-2	Celina, Texas

Willham, Oliver S.	Agri., Fr.	1-2	Randlett
Willham, Time	H. E., Fr.	1-2	Randlett
Williams, Armon	M. E., Jr.	1-2	Marshall
Wil iam, Howard	Agri., Soph.	1-2	Keota
Williams, D. S.	Agri., Soph.	1-2	Purcell
William, Link	Sec.	1	Okeene
Williams, Paul	C. and M., Fr.	1-2	Stillwater
Williman, Chas. N.	Special	2	Davidson
Williams, Thelma	Sec.	SS-1-2	Yale
Wi liams, Wm.	Engr., Fr.	1-2	Marshall
Williams, Velma	Bus.	1-2	Stillwater
Willis, Mrs. Chas.	Edu., Fr.	1	Stillwater
Wilson, Hubert C.	Sec.	1-2	Homestead
Wilson, E. R.	C. and M., Fr.	2	St. Joseph, Missouri
Wilson, Robert W.	V. A.	1-2	Wilburton
Wilson, Toru	Music, Fr.	1-2	Valliant
Wilson, Wi bur E.	V. A.	1-2	Homestead
Wilson, Clyde	Sec.	1	Sallisaw
Wilson, Mrs. J. A.	Special	2	Stillwater
Wilson, W. P.	Agri., Soph.	1-2	Leonard, Texas
Winsitt, L. Donald	Engr., Fr.	2	Higgins, Texas
Winters, E.	Sec.	1-2	Wetumka
Wisdom, Gladys	Edu., Fr.	1-2	Clinton
Wisherd, M. J.	V. A.	1-2	Stillwater
Wisherd, Thos.	Sec.	1-2	Stillwater
Wishnieff, Joseph	Special	SS-1-2	Stillwater
Withers, Addie	H. E., Jr.	SS-1-2	Stillwater
Witt, Chas. A.	Engr., Fr.	1-2	Guthrie
Wittich, Grace	C. and M., Fr.	1-2	Stillwater
Wolff, N. U.	V. A.	2	McAlester
Wolff, J. P.	S. and L., Sr.	2	Waukomis
Wolverton, Addie	H. E., Fr.	1-2	Wapanucka
Wood, Eddie L.	Sec	2	Cooperton
Wood, Esther	Sec.	1-2	Bushyhead
Wood, Naomi	Edu., Fr.	1-2	Bushyhead
Wood, Paul H.	E. E., Soph.	1-2	Lahoma
Wood, S. R.	Special	1-2	Watertown, South Dakota
Wood, Wm.	Trades	1	Bushyhead
Wood, Wm. Roy	Sec.	1-2	Cooperton
Woodman, E. E.	V. A.	2	Gould
Woodring, Clarissa	Bus.	SS-1-2	Stillwater
Woodring, H. C.	Engr., Fr.	1-2	Stillwater
Woodruff, Elmer	V. A.	1-2	Wilburton
Woodworth, Alex	S. and L., Fr.	1-2	Minco
Woolard, Chas. I.	C. and M., Fr.	1-2	Stillwater
Woothtakewahbitty, Owen	Agri., Fr.	1-2	Fletcher
Word, C. V.	Engr., Fr.	1	Arnett
Wright, Eva B.	H. E., Sr.	SS-1-2	Stillwater
Wright, Harry A.	C. and M., Fr.	1-2	Stillwater
Wright, Joe W.	Sec.	1-2	Sallisaw
Wright, Noah F.	Edu., Sr.	SS-1-2	Cashion
Wright, L. W.	Engr., Fr.	1-2	Wakita
Wunderlich, Fred E.	Sec.	1-2	Gracemont
Wyant, Carrie	H. E., Fr.	1-2	Orlando
Wyant, Edith	H. E., Fr.	1-2	Orlando
Wyatt, Wm. B.	Agri., Fr.	1-2	Perry
Wycoff, Eleanor	H. E., Soph.	1-2	Manchester
Wylder, Robert	Trades	1	Temple
Young, Francis W.	Special	1-2	El Reno
Young, John G.	Sec.	1-2	Stillwater
Young, Ione	C. and M., Sr.	1-2	Stillwater
Young ,Lela	Sec.	1	Stillwater
Young, Verle	Edu., Sr.	1-2	Stillwater
Younger, Galen F.	V. A.	1	Oklahoma
Young, Raymond	Sec.	1-2	Stillwater
Zalabak, Tony B.	C. and M., Fr.	1-2	Kingfisher
Zears, Chas.	Agri., Fr.	1-2	Sandoval, Illinois
Zeman, John K.	C. and M., Soph.	1-2	Medford
Zink, Arnetis	Special	1	Muskogee
Zink, David D.	Sec.	1-2	Muskogee

SUMMER SESSION STUDENTS

Adams, Kriewtz, Fairfax
Akers, Iva, Stillwater
Allen, Lancy, Tonkawa
Andrews, Donna, Stillwater
Andrews, Grace, Stillwater
Andrews, Vera, Stillwater
Atkinson, Florence, Stillwater
Atwood, Fern, Canton
Auston, Etta, Stillwater

Baird, Mary H., Pawnee
Baird, Claude, Woodward
Baird, Mrs. Nora, Woodward
Balenseifen, Ril'a, Okeene
Barker, Thomas P., Blair
Barker, Harris, Wynona
Barron, Margaret, Stillwater
Barthel, Blanche, Stillwater
Bassler, Emma A., Stillwater
Baxter, Clara, Cleo Springs
Bean, Karl, Oklahoma City
Bean, Mrs. Mabel, Oklahoma City
Bechtel, Jewell, Gleneoe
Benton, Hazel, Glencoe
Berry, Elida, Pawnee
Bever, Inez, Stillwater
Bile, Alma, Agra
Black, Mrs. J. M., Wann
Black, Ethel, Centrahoma
Black, Pearl, Centrahoma
Blackburn, Alice, Avery

Blagg, Faye, Calumet
Booker, Beulah, Headrick
Booker, Doshia, Headrick
Bowers, Copeland, Stillwater
Boyd, Ella, Mannford
Bradley, Ruth, Broken Arrow
Bratton, Letha, Stillwater
Bridges, J. W., Norman
Bright, M. R., Hugo
Briggs, G. A., Hobart
Brock, Mary D., Kendrick
Brower, Belle, Stillwater
Brower, Laura, Stillwater
Bullock, Elois, Stillwater
Burnett, Belle, Ryan
Burnett, Bruce, Ryan
Brock, Mary D., Kendrick
Burton, Bertha, Stillwater
Butler, Marion, Denver, Colorado
Buzzard, Agnes, Dale

Cacy, Claude, Oilton
Cacy, Flora, Oilton
Caldwell, Nita, Stillwater
Caldwell, Mike, Tecumseh
Callarman, Eva, Stillwater
Caplena, Emma
Carey, Madge, Nowata
Cassidy, Lou Berta, Chandler
Christmas, Bernice, Pond Creek
Clark, Mary L., Stillwater
Clark, Albert, Tecumseh
Cleere, Frank, Altus
Click, Guy, Comanche
Clingenpeel, Lova, Stillwater
Clifton, Pearl, Perkins
Colbert, Laura, Ada

Co'lins, Mrs. Mary, Manchester
Collins, Lenore, El Reno
Copley, I. R., Yale
Conley, Nora, Maramec
Copple, Ada, Cushing
Correll, Lawrence E., Chilocco
Cowan, J. P., Stillwater
Cross, Lucie, Roswell
Crossley, Rosa, Oklahoma City
Cruzan, Ethel, Stillwater
Cumming, Mary E., Pawhuska
Cunningham, Beulah, Pawnee
Cunnnigham. Josie, Pawnee
Currin, Erma, Golden City, Missouri
Curry, Grace, Oilton

Dailey, Nora, Jennings
Darlow, Margaret, Glencoe
Davis, Virgiline, Wichita, Kansas
Davis, Florence, Cushing
Delano, Lorene, Bristow
Dennis, Ethel, Glencoe
Derrick, Bess Hickman, Perkins
Dial, Henry, Tecumseh

Dickerson, Mrs. L. H., Atoka
Diehnel, Viola, Valley
Ditto, Vesta, Avery
Douglas, Mab'e, Yale
Doutey, Mary, Yale
Downey, Mabel, Stillwater
Draughen, Moxie, Hominy
Dugan, Hazel, Red Rock

Eastham, Catherine, Stillwater
Eastham, Olive M., Stillwater
Edwards, Eugenia. Morrison
Eikner, Marie, Headrick

Eilis, Anna. Perry
Evenhoe, Irene, Ralston
Eyler, Orlando, Stillwater

Fair, Jessie, Idabel
Fairchild, Ethel, Claremore
Fairchild, Louella
Feather, Othal, Comanche
Fairchild, Helen, Morrison
Fellows, Iris, Stillwater
Files, Agnes, Ralston
Finley, Walter, Avant
Fisher, Guy E., Copan
Flower, Florence, Stillwater
Flynt, Grace, Perkins

Fo'iart, C. R., McAlester
Foster, Donald, Kingfisher
Foster, Anna, Stillwater
Franklin, Marion E., El Reno
Fraley, Martin, Hominy
Freeman, Estelle, Mangum
Freeman, Essie, Perry
Freeman, Olive, Perkins
French, Laura, Stillwater
Friedemann, Lydia, Stillwater

Gardner, C. G., Stroud
Garrett, Lillian, McKenzie, Tennessee
Gerardy, Myrtle, Chandler
Gertsen, Jennie, Stroud
Gibson, Gladys, Comanche
Gilbert, Mrs. Bertha, Stillwater z z z z
Gilbert, Edith, Stillwater
Gilbert, Ruth, Salt Fork
Giles, O. A., Sand Springs
Gilleland, Zealan, Seminole
Gilliam, Winnie, Chandler
Gillilan, Iva, Kingfisher

Glanvil'e, Mrs. Effie, Perry
Goe, Edith, Hayward
Goudelock, Beverly, Oklahoma City
Goudelock, Walter, Oklahoma City
Graham, Vera, Yale
Graves, Etelle, Stillwater
Gray, A. A., Stillwater
Gray, Grace, Stillwater
Green, Frank, Stillwater
Grimsley, J. T., Pawnee
Groom, Frances, Stillwater
Gouillioms, Clyde, Tecumseh

Hamilton, M. C., Valliant

Hamman, Omega, Cushing

Hamon, Dora, Stroud
Hampton, Enloe, Comanche
Hampton, Pearl, Blocker
Hankins, Lois, Stillwater
Harp, June, Stillwater
Harris, Norah, Payson
Haston, Dewey, Stillwater
Havill, Wallace, Bennington
Henderson, Georgia, Yale
Henderson, Maye, Tribby
Herrin, Ronnie, Edmond
Hesser, Mildred, Glencoe
Hesser, Mina, Glencoe
High, Margaret, Cushing
Hills, Zola, Stillwater
Hoeffer, Berdie, Stillwater
Holt, Gertrude, Stillwater
Hough, Muriel, Cushing
Houston, H. M.
Howard, Clara, Wewoka
Howard, Marion, Wewoka
Howard, Herman, Stillwater
Howrey, Mrs. J. L., Gray Horse
Hudgens, Georgia, Yale
Hunter, Alice, Mangum
Roeser, Zelma, Claremore

Ives, Herbert D., Avery

Jackson, Charley E., Blair
James, Vernon M., Yale
Jedlicka, Amelia, McAlester
Jenkins, Mattie, Arkansas City, Kansas
Jeter, Harry, Wann
Johnston, Helen, Stillwater
Johnson, Fraley, Hominy
Jones, Weslev, Wynona
Jordan, Robert, Cleveland

Kasl, Thelma, Stillwater
Katz, Helen, Stillwater
Kennedy, Mabel, Morrison
Kesler, Clara, Stillwater
Kile, Mrs. Ada, Oilton
Kile, Eugene, Oilton
Kimbell, Raymond, Altus
King, Gladys, Geary
King, Lela, Stillwater
Kirk, Addie, Stillwater
Kirk, Christina, Perry
Kirkpatrick, Katie C., Stillwater
Knight, Eugene R., Stillwater
Knox, Ethel, Perry
Kobes, Beatrice, Perry
Krauss, Norma, Pawnee

Landingham, E., Yale
Landsaw, Myrtle, Chandler
Latimer, Louise, Lexington
Lawrence, M. L., Perkins
Lewis, Lee, Stillwater
Lewis, Alta, Ponca City
Lillard, Violet, Hominy
Lockwood, Stella, Chandler
Long, Viola, Avery
Lowry, Fern, Stillwater

McClelland, Harriet, Newton, Kansas
McCollom, W. W., Bone Wolf
McDowell, Gladys, Stillwater
McFall, Ruby, Featherston
McGehee, Elva, Red Rock
McLaury, Lorene, Cushing
McLemore, David, Altus
McMahan, Hatton, Altus
McNeely, Vivian, Stillwater
McNeff, Mrs. Alice, Stillwater
McWethy, Faye, Guthrie
McWhorter, Ruth, Orlando

Mallory, Esther, Pawnee
Markwell, Earl D., Stillwater
Markwell, Ethel, Stillwater
Marlette, Abbie, Claremore
Marshall, Lydia, Goodnight
Martin, Hazel, Shawnee
Mauch, Clara, Chandler
Mauch, Louise, Chandler
Means, Mrs. C. A., Stillwater
Miller, Blanche, Chandler
Miller, Christine, Newton, Kansas
Miller, Ruth, Perkins
Miller, Stanley R., Stillwater
Mitchell, Gladys, Glencoe
Mitchell, Mildred, Glencoe
Moberly, Beatrice, Stillwater
Mohr, Charlotte, Mustang
Moon, James, Frederick
Mooney, Robert, Lenapah
Moore, Anna, Pawnee
Moore, Carrie, Blackwell
Moore, Mrs. Effie, Fairview
Moore, Guilia, Blackwell
Morris, Mabel, Meno
Morris, Florence E., Meno
Morrison, Alma, Bristow
Morrow, Sue, Broken Arrow
Musgrave, Eunice, Stillwater
Musgrave, Ruth, Stillwater
Myers, Muriel, Yale
Myrick, Vera, Perkins

Nash, C. W., Hydro
Nash, Florence, Hydro
Nelson, Eunice, Stillwater
Newton, Pearl, Stillwater
Nisbett, Clane, Tecumseh
Nisbett, Sue, Tecumseh
Noland, Vada, Chandler

O'Bryant, Flossie, Glencoe
O'Kelly, Clara, Pawnee
Olmstead, Claude, Luther
Olmstead, Nora, Ripley
Orner, Sophia, Stillwater
Orr, Don M., Madill
Osterloh, Bonnie, Trousdale
Otey, Ivo, Stillwater
Oursler, Anna, Stillwater
Outhier, Virgil, Homestead
Oxley, Mrs. W. E., Cleo Springs
Oxley, W. E., Cleo Springs
Oxley, Winnifred, Cleo Springs

Parker, Martha, Stillwater
Parker, Pauline, Stillwater
Parker, Hazel, Stillwater
Parker, Grace, Glencoe
Parker, Rachel, Stillwater
Parrish, Opal, Shamrock
Patton, Florence, Stillwater
Patton, Ruth, Stillwater
Peck, Dora, Vinita
Peebles, Grace, Stillwater

Percival, Kathryn, Stillwater
Peery, Gordon, Stillwater
Peery, Myrtle, Soper
Peterson, Eunice, Glencoe

Rader, Sarah, Glencoe
Raffety, Olive, Yale
Rainey, Gladys, Ralston
Ramsey, Geneva, Cushing
Ransom, Georgia, Stillwater
Ransom, Harry L., Stillwater
Rasmussen, Sylvia, Hayward
Ray, Louise, Stillwater
Raynor, Vera, Stillwater
Reichman, Winnie, Stillwater
Remington, Izetta, Avery
Rentfrow, Sybil, Perkins

Scarbrough, R. P.
Schacher, Sadie, Stillwater
Schooler, Josie, Stillwater
Schooler, Ollie, Stillwater
Seikel, Lawrence, McLoud
Settle, Bessie, Stillwater
Shultz, S. V., Tolbet, Texas
Shelton, Belva, Cushing
Shumate, Loreen, Perkins
Skinner, E. Ray, Stillwater
Smith, Ila, Tryon

Tabor, Mary, Stillwater
Tankersley, P. A., Muskogee
Tarman, May, Cushing
Taylor, Gladys, Stillwater
Taylor, Mary Alice, Stillwater
Terrill Jesse, Oilton
Terry, John, Hominy
Tozer, Mrs. Belle, Jennings
Thomas, Fannie, Stillwater
Thompson, E. R., Oklahoma City
Thompson, Goldie, Hayward

Upp, Blanche, Chelsea

Vahlberg, Walter T.
Vaughn, Myrtle, Pawnee

Waddle, Muffett, Hominy
Wade, C. M., Coyle
Walker, Irene, Helena
Wallace, Flossie, Featherston
Waller, Lottie, Cushing
Webb, Jennie, Orlando
Weitz, Vella, Wynona
West, Bernice, Stillwater
Whipple, Pauline, Stillwater
Whitham, Blanche, Tryon

Young, Gladys, Carney

Zahn, Esther, Stillwater

Potter, Paul, Blackwell
Potts, Mabel, Headrick
Powell, Dwight, El Reno
Priddy, Anna, Blackwell

Rice, Dora, Walters
Richards, Allie, Chickasha
Richards, Lucille, Stillwater
Rieck, Martha, Canton
Roberts, D. M., Stillwater
Roberts, Minnie, Stillwater
Robertson, R. B., Stillwater
Rodgers, Anna, Glencoe
Roof, Blanche, Tryon
Rosebush, Allen, Tecumseh
Roush, Nola, Enid
Rusher, Helen

Smith, Nellie, Vici
Smith, Walter, Vici
Snyder, Berl, Hayward
Srack, Bertha, Chandler
Spencer, Grace, Yale
Stanfill, Maude, Valley
Stansbury, Annie, Stillwater
Sterling, Helen, Pawnee
Stokesberry, L. S., Stillwater
Studebaker, Rosa, Stillwater

Thompson, Hazel, Pawnee
Thompson, Irene, Mangum
Thompson, Mary Lou, Mangum
Thompson, May, Mangum
Tracy, Alzora, Chandler
Treese, Mabel, Cushing
Triplett, Carrie, Stillwater
Trummer, Frances, Hastings
Tyrrell, Harriet, Blackwell
Turner, Anna, Pawnee

Vinson, John, Cushing

Whitlock, Ernest, Granite
Williams, Edith, Mulhall
Williams, Florence, Stillwater
Williams, Lloyd, Altus
Wilson, Authorene, Cleo Springs
Wilson, Grace
Wilson, Josie, Stillwater
Wilson, Maude, Catoosa
Wood, Ruby, Stillwater
Woodmansee, Hollis, Wynona

SUMMARY OF STUDENTS BY CLASSES

SESSION, 1919-1920

Graduate students	13
Senior class	83
Junior class	68
Sophomore class	164
Freshman class	425
Secondary School	427
Specials	70
Business	129
Students Vocational Agriculture	256
Students Vocational Home Economics	17
Trades	89
	1,741
Summer School, 1919	575
	2,316
Duplicates	183
Total	2,133

THE ALUMNI

The following is a list of the graduates of the College. In case of change of address, it is especially desired that graduates advise the Registrar of same. The courses from which alumni have received their degree are indicated as follows:

I Agriculture
II Engineering
III General Science.
IV Domestic Science and Art.
V Science and Literature.
VI Teachers' Normal Training.
VII Commerce and Marketing.

(Abercrombie) Rapp, Leona, IV, 1917, at home ..... Stillwater
Abercrombie, Russell T., I, 1916, 1137 W. First street ..... Oklahoma City
Abernathy, Eunice, VI, 1916, Teacher ..... Altus
(Abernathy) Graves, Ora, IV, 1916, Teacher ..... Eureka Springs, Arkansas
Abernathy, Oscar, V, 1915 ..... Hollis
Acheson, Margaret, VI, 1912, Christian Science Practitioner ..... Jacksonville, Florida
(Adams) Weaver, Kathryn, IV, 1916, at home ..... Stillwater
Adams, A. W., I, 1896, Real Estate Agent, 2502 Sixth avenue ..... Fort Worth, Texas
Adams, J. H., I, 1896, Oil Properties Broker, 2933 Hemphill street ..... Fort Worth, Texas
(Atkins) McKeeman, Evelyn, IV, 1911, at home ..... Stillwater
(Adams) Short, Myrtle, IV, 1913, at home ..... Little Rock, Arkansas
Akogi, Yutaka, I, 1912 ..... Tokio, Japan
Albert, H. R., V, 1913, Superintendent of Schools ..... Heavener
Alexander, Nell, IV, 1919 ..... Hartshorne
Allen, H. S., II, 1910, 3533 Tracy avenue ..... Kansas City, Missouri
Anderson, R. L., I, 1917 ..... Blackwell
Anderson, A. B., II., A., T. and S. F. Railway ..... Canadian, Texas
Anderson, P. K., II, 415 Dayton ..... Muskogee
Anderson, A. W., III, 1900, Lawyer ..... Woodward
Anderson, R. E., V, Attorney-at-Law ..... San Diego, California
Anderson, Albert A., II, 1916 ..... Pittsburgh, Pennsylvania
Andrews, Carl S., I, 1916, at home ..... Stillwater
Andrews, Myron, I, 1916, Mobile Fields Laboratory ..... A. E. F.
Andrews, Maude, IV, 1915, Home Demonstration Agent ..... Idabel
Arabajian, H. K., I., 1915, General Benevolent Union ..... Cairo, Egypt
Armstrong, Ola, IV, 1919 ..... Hobart
Atkinson, Mary B., III, 1906, Experiment Station ..... Stillwater
Aycock, Thomas, VII, 1918 ..... Healdton

Baade, H. J., III, 1910, Teacher ..... Presidio, California
Baird, R. O., III, 1908, Assistant Food Commissioner ..... Fargo, North Dekota
Baker, DeLarue, V, 1914, Farm Demonstration Agent ..... Tulsa
Ball, H. L., II, 1905, Salesman, Western Elec. and Mfg. Co. ..... Rochester, New York
(Bandel) Kyte, Maude, IV, 1915, at home ..... Oklahoma City
Bandelier, George, II, 1918, Assistant to County Engineer ..... Stillwater
(Barnes) Heston, Hazel, IV, 1918, at home 1530 Vincent avenue ..... Chicago, Illinois
Barnes, Henry Dale, I, 1914, Livestock Farmer ..... Banner
Bartlett, Alice, VI, 1917, in School ..... University Park, Iowa
Bartlett, E. E., V, 1912, Treasurer, Bartlett & Collins Glass Co. ..... Sapulpa
Bartlett, E. C., I, 1912, Pine Grove Ranch ..... Rye, Colorado
(Bass) Nelson, Lillian, VI, 1915, at home ..... Houston, Texas
Baumann, Chas. V. 1916, Farming ..... Bessie
Beck, Paul V., V, 1916, Teacher ..... Stillwater

(Bellis) Means, Ida Olive, V, 1914 ..... McLoud
Bellis, Chas. A., I, 1919, Box 288 ..... Pecos, Texas
Bennett, Paul, II, 1908 ..... Stillwater
Bentley, M. R., II, 1909, County Agent ..... Stillwater
Bever, F. L., II, 1919 ..... Skedee
Bever, Hazel M., IV, 1919 ..... Skedee
Berry, Roger, I, 1918, County Agent ..... Altus
Biggin, Dorothea, VI, 1916, Teacher ..... Birmingham, Alabama
Bilyeu, R. I., V, 1905, Farmer ..... Owasso
Bilyeu, Floyd M., VII, 1919 ..... Golden, Colorado
Black, James A., I, 1917, Cooperative Livestock Development Association ..... Oklahoma City
Blackwell, C. P., V, 1911 ..... Clemson College, South Carolina
Bloom, C. B., II, 1913, Science and Research, Aviation Division ..... Waco, Texas
Blue, True C., II, 1909, Manager, Bagnall & Hillis Co., Agents, Electrical Co..... Yokohama, Japan
Blue, Fred R., II, 1905, Road Commissioner ..... Ingersoll
Boley, A. L., II, 1908, Chief Electrician, Navyyard ..... Washington, D. C.
Bonar, Mollie M., VI, 1916, Teacher ..... Oilton
Bonar, H. T., II, 1913, 1811 Pendleton ..... Kansas City, Missouri
Booth, John, I, 1917 ..... Caddo
Boutin, H. C., II, 1909, Automobile Salesman ..... Blackwell
Bowers, G. W., III, 1897, Railway Conductor, St. L. and S. F., Railway ..... Enid
Bowers, Chas., I, 1913, Lindhurst Farm ..... Lake Villa, Illinois
Bowers, R. D., III, Lawyer ..... Roswell, New Mexico
(Boyd) Muncie, Nina, VI, 1915, at home ..... Stillwater
Boyd, Oran Cecil, I, 1916, 801 Elm ..... Columbia, Missouri
Boydston, Ethel, IV, 1915, Nurses' Home, City Hospital ..... St. Louis, Missouri
(Braden) Robertson, Gertrude, III, 1916, at home ..... Sapulpa
(Bradwell) Newby, Ollie, V, 1909, Music Teacher ..... Gate
(Brandon) Lewis, Edna, IV, 1915, at home ..... Stillwater
Brannin, Louis, I, 1914 ..... Inola
Brannin, Mrs. Louis ..... Inola
(Bras) Okens, Ruth, III, 1907, at home ..... Okechobee, Florida
(Breidenthal) Coppedge, Hazel, at home ..... Cleveland, Kansas
Breuer, E. H., II, 1911, Manager, El Reno Foundry and Machine Co. ..... El Reno
(Brian) DeMerritt, Naomi, IV, 1915, at home ..... Newkirk
Bridges, J. W., VI, Department of Education, Capitol Bldg. ..... Oklahoma City
Briggs, Glen N., I, 1916, U. S. Experiment Station via San Francisco ..... Island of Guam
Bright, Merydith, I, 1919 ..... Hugo
Brisby, Cassie K., IV, 1915, Teacher ..... Skiatook
Briscoe, Jack, II, 1917, Goodyear Rubber Co. ..... Akron, Ohio
Brodell, A. P., I, 1917, Land Classification, U. S., Geological Survey ..... Washington, D. C.
Brodell, A. C., VI, 1914 ..... Skedee
Broemel, Agnes, VI, 1915, 157 Augusta avenue ..... De Kalb, Illinois
Broom, Rose, V, 1905, Teacher ..... Howe
(Brooke) Schreiber, Hazel, V, 1914, at home ..... Harriston, Virginia
Brower, Belle, IV, 1919, Teacher ..... Eufaula
Brower, Laura, IV, 1916, Teacher ..... Cleveland
Brower, Maude, IV, 1918, Teacher ..... Wainwright
Brown, Mary E., VI, 1917, Teacher ..... Cushing
Brown, Chas., III, 1906, Bookkeeper-Truck Gardener ..... East Lansing, Michigan
Brown, C. B., I, 1913 ..... Tucumcari, New Mexico
Brown, J. J., II, General Electric Co. ..... Manila, Philippine Islands
Brown, O. C., II, 1914, 5737 Kenwood avenue ..... Chicago, Illinois
Browning, J. M., I, 1915, Agriculturist, Box 659 ..... Riverside, Illinois
Brumbaugh, Norma May, IV, 1917, Teacher ..... Keiffer
Bryant, Ray M., I, 1917, Assistant County Agent ..... Ardmore
Buchanan, W. A., I, 1912, County Agricultural Agent, 706 Summit ..... Marshalltown, Iowa
Buddrus, Edmond, I, 1917 ..... Salt Creek, Wyoming
Buffington, Edith, VI, 1918 ..... Stillwater
(Buffington) McBride, Betha, IV, 1912, Teacher ..... Stillwater
Bullen, Dr. C. B., III, 1912, 578 W. 149th street ..... New York, N. Y.
Bullen, C. K., II, 1909 ..... Stillwater
Bullock, N. P., Jr., III, 1899, Mail Carrier ..... Pauls Valley
Burks, Elizabeth, IV, 1913, 1524 E. Second street ..... Tulsa
Burke, M. P., II, 1909, care Texas Oil Co ..... Wichita Falls, Texas
Burke, W. J., II, 1911, Lirst Lieutenant, 39th C. A. C. ..... Camp Jackson, South Carolina
Burlison, Wm. L., I, 1905, University of Illinois ..... Urbana, Illinois
*Burnett, Roy E., III, 1905 .....
Burnham, Alice, IV, 1919, at home ..... Stillwater
Butler, Joe B., II, 1915, 1023 Scott avenue ..... Fort Scott, Kansas

Caldwell, Mabel, VI, 1918, 113 K. S. A. C. ..... Manhattan, Kansas
Caldwell, Virgil E., V, 1917, Bacteriology Department, K. S. A. C. ..... Manhattan, Kansas
Camp, W. E., II, 1910, Agent Central Electric Co. ..... Sacramento, California
Campbell, Jeff C., VII, 1917 ..... Chicago, Illinois
Campbell, M. B., I, 1914, Stockman, 1128 Kansas avenue ..... Chickasha
Campbell, Rhea, VI, 1915, 411 N. Ross ..... Guthrie
(Campbell) Santee, Viola, IV, 1913, at home ..... Muskogee

Canfield, Jess J., V, 1916, 403 W. Grand ..... Ponca City
Cantwell, Carolyn, V, 1919, 703 E. Warner ..... Guthrie
Carlson, Floyd B., I, 1918, Farmer ..... Meno
Carlson, Grace, IV, 1917, Teacher ..... Cherokee
Carlson, Alice, IV, 1919 ..... Meno
Carlysle, Kathleene, IV, 1917, 1931 10th street ..... West Calgary, Alberta, Canada
Carney, Zora Martha, IV, 1914, Teacher ..... Rushville, Indiana
Carpenter, Chas. L., I, 1915, Farmer ..... Bridgeport
Carson, Ross L., III, 1907, Hardware Business ..... Perkins
Carson, Susie, III, 1912, Hardware Business ..... Perkins
Carter, E. O., II, 1916, Pioneer Telephone Co. ..... Oklahoma City
Carter, W. C., II, 1911, Westinghouse Electric and Mfg. Co. ..... Detroit, Michigan
Cass, E. R., I, 1915, 917 S. Jackson ..... Tulsa
Cass, Maude, IV, 1919, 915 S. Jackson ..... Tulsa
(Cassali) Peck, Louise, IV, 1911, at home ..... Stillwater
(Castle) Vance, Lois, IV, at home ..... Atlanta, Georgia
(Caton) Younge, Orpha, V, 1909, Teacher ..... Muskogee
Caudell, A. N., III, 1897, U. S. National Museum ..... Washington, D. C.
Chandler, Emma, V, 1907, Extension Division, A. and M. College ..... Stillwater
Chandler, Fred F., II, 1904, 827 Market street ..... Bethlehem, Pennsylvania
(Chester) Goodwin, Bertha, III, 1907, at home ..... Nevada, Missouri
Chewning, W. P., I, 1917 ..... Stillwater
Choate, Geo. R., I, 1915, ... North McAlester
(Chivington) Tyson, Anna, IV, 1911, at home ..... Tulsa
Clark, Arthur C., II, 1906, Mail Service ..... Claremore
Clark, F. J., III, 1908, 318 S. Brinsbail ..... St. Paul, Minnesota
Clark, C. L., V, 1914, Vice President, Hillman Oil and Gas Co. ..... Cushing
Clark, J. T., III, 1898, Farmer ..... Puerto Princesa, Palawan, Philippine Islands
Clausen, Essie, VI, 1916, Bookkeeper, 327 W. 7th ..... Oklahoma City
Clausen, Lillian, VI, 1918, Stenographer, care Y. W. C. A. ..... Des Moines, Iowa
Clausen, Nellie C., IV, 1914, Homeopathic Hospital, 113 Littleton avenue ..... Newark, New Jersey
Clausen, Mrs. B. C., VI, 1912, University of North Dakota ..... Bismark, North Dakota
Clausen, B. O., II, 1912, American Propeller and Mfg. Co. ..... Baltimore, Maryland
Clausen, R. E., I, 1910 ..... Berkeley, California
Clay, Henry, V, 1918 ..... Ninnekah
Clemmer, H. J., I, 1915, Field Station, U. S. Experiment Station ..... Dalhart, Texas
Cloukey, H. U., III, 1910, Chemist, Forest Products Laboratory ..... Madison, Wisconsin
Cobb, A. L., II, 1913, Chief Inspector of Ammunition, Sec. 371 Broadway ..... New York, N. Y.
(Cobb) Payne, Mary, IV, 1913, at home ..... Amherst, Massachusetts
Coburn, Carrol, II, 1912, 3212 Gilbert avenue ..... Cincinnati, Ohio
Collins, Blanche, VI, 1919 ..... Stillwater
Cole, Frank, III, 1908, Solution Foreman, Anaconda Copper Mining Co. ..... Anaconda, Montana
Comstock, Harry, II, 1905, General Superintendent, Assex Co. ..... Mineville, New York
Conklin, Harry E., II, 1914, Westinghouse Electric and Mfg. Co. ..... Oklahoma City
Conn, Julian, II, 1915, Valuation Engineer, U. S. Government ..... Kansas City, Missouri
Connell, W. B., V, 1912, 1903 Richardson ..... Dallas, Texas
Conner, W. A., I, 1917, 7½ S. Robinson ..... Oklahoma City
Conway, Wm. T., I, 1910, State Club Leader ..... State College, New Mexico
Cook, H. P., II, 1914, Science and Research ..... Waco, Texas
Cooley, D. F., VI, 1916, Bookkeeper No. 29 ..... Altus
Corbin, D. C., VI, 1919 ..... Altus
Corbin, Bert O., II, General Electric Co. ..... Scottdale, Pennsylvania
(Cox) Fisher, Mary, IV, 1913 .....
Correll, V. I., V, 1912 ..... Sand Springe
Correll, Lawrence E., I, 1919, Athletic Coach ..... Chilocco
Crawford, G. L., I, 1915, County Agent ..... Spur, Texas
Crawford, C. W., III, 1909, Chemist, Bureau of Chemistry, U. S. Department of Agriculture ..... Washington, D. C.
Crocker, Fred, V, 1912, Drawer F ..... Fairfield, Alabama
(Cummings) Hamilton, Maxie Carl, VI, 1916, at home ..... Tulsa
Cummings, Ina, VI, 1919, at home ..... Stillwater
Cunningham, Katherine, VI, 1917, Teacher ..... Cordell

Darlow, A. E., I, 1919 ..... Stillwater
Dale, Ernest B., II, 1914, 3000 Main ..... Parsons, Kansas
(Davidson) Johnson, Lois, VI, 1918 ..... Ames, Iowa
Davis, Geo. E., II, 1916, Drawer F, Empire Gas Co. ..... Bartlesville
Davis, R. N., I, 1911, 317 Holland Bldg. ..... Fresno, California
DeBord, George G., V, 1914, 205 A street, S. E. ..... Washington D. C.
Denton, Mary Belle, IV, 1918, at home ..... Newkirk
Denton, Esther, IV. 1917, Teacher ..... Newkirk
Denton. Elizabeth, IV, 1916, Assistant Cashier, First National Bank ..... Skiatook
(Dillon) Moorhouse, Lucille. V. 1917, at home ..... Stillwater
Dickson, G. K., V, 1917, 4926 Washington Blvd. ..... St. Louis, Missouri
(Donart) Coffey, Cora, III, 1900, 1015 D avenue ..... Lawton
Dolde, W. E., II, 1912, Teacher ..... Burbank, California
Donart, C. R., 1899, 1301 N. Ellison ..... Oklahoma City
(Donart) Wilcoxen, Gladys, IV, 1914, at home ..... Stillwater

Donehoo, Grace, IV, 1918, Teacher ..... Wilburton
*Dorman, W. S., II, 1911 .....
Doty, Harold, I, 1915 Creameryman, Dairy Department, Oklahoma A. and M. College ..... Stillwater
Doty, Luicile, IV, 1919, Teacher ..... Avant
Dougan, E. E., II, 1907, General Electric Co. ..... Pittsfield, Massachusetts
Douglas. Marion, VI, 1917, High School Principal ..... Yale
Drake, T. J., V. 1913, Real Estate Business ..... Fort Lauderdale, Florida
Drummond, A. A., I, 1915 ..... Hominy
Drummond, Frederick G., V, 1914 ..... Hominy
DuBois, Robert, III, 1919, 801 Duncan ..... Stillwater
Duck, T. W., II, 1912, ... Plainview, Arkansas
Duck, F. E., I, 1896, Farmer ..... Stillwater
Durham, S. B., I, 1904, Dairy Husbandman, Bureau of Animal Industry, U. S. Department of Agriculture ..... Denison, Texas
(Dysart) Teters, Minnie, III, 1899, at home ..... Oklahoma City
Dunlavy, Henry, I, 1919 ..... Stillwater

Eads, Velma, IV, 1913, Agriculturist ..... Kansas City, Missouri
Eberle, Dovie, III, 1906, Dietitian in Hospital ..... New York, N. Y.
Edson, E. O., I, 1915 ..... Frederick
Elston, W. B., II, 1915, Motor Experiment ..... Garden City, Long Island, N. Y.
(English) Lantz, Maude M., III, 1907, at home ..... Orlando
Emmons, Clarence, II, 1918, Engineer, Box 4 ..... Vinita
Emmons, Mrs. Clara, VI, 1917, Box 4 ..... Vinita
English, Wm. L., I, 1905, Frisco Bldg. ..... St. Louis, Missouri
(Evans) Whittenberg, Ruth, IV, 1917, at home ..... Stillwater
Evans, A. Ray, I, 1912, Grain Investigations, Bureau of Markets, U. S. Department of Agriculture ..... Washington, D. C.
Epperson, Jesse Harrison, V, 1914, Director, Bacteriological Laboratory ..... Durham North Carolina
Fair, R. M., VI, 1917, Sarbonne University ..... France
Fansher, Ted, I, 1913, Livestock Breeder ..... Edmond
Fansher, R. A., I, 1912, Registered Cattle Business ..... Edmond
Faulds, N. M., II, 1910. Truck Farmer ..... Wachula, Florida
Fellows. Iris. VI, 1917, Teacher, 611 Moore street ..... Henryetta
Fellows, Reda, IV, 1917, Johns Hopkins Hospital ..... Baltimore, Maryland
Fellows, K. R., II, 1915, County Engineer, 701 Duck street ..... Stillwater
Fennema, Nick, I, 1915, Room 409, 205 Franklin street ..... New York, N. Y.
(Finch) Connell, Laura, IV, 1915, at home ..... Dallas, Texas
Finnell. H. H., I, 1917, Agriculturist ..... Stillwater
First, Fern, VI, 1916. Teacher ..... Stillwater
*Fish, Wayne, II, 1918 .....
(Fisher) Hinkel, Florence, IV, 1917, at home ..... Stillwater
(Fisher) Marx, Anna, IV, 1915, at home ..... Pawnee
Fisher, J. G., II, 1910, Manager, Cotton Plantation ..... Tempe, Arizona
Fisher, J. M., II. 1915. Efficiency and Maintenance Engineer ..... Ford City. Pennsylvania
Flower, A. W., III, 1902 ..... Halfway, Oregon
Folk, Joe, II, 1919 ..... Lawton
Ford, W. W., II, 1913, Teacher. High School ..... Chickasha
Ford, A. G., III, 1898 Proprietor and Manager, Insurance and Loans ..... Muskogee
Forrester, C. T., I, 1917, Route 1 ..... Chickasha
Forrester, Wirt E., I, 1915, Stockman ..... Newkirk
Forrester, Nell. IV, 1919, ... Ashland
Forrester, D. R., I 1913 ..... Osceola, Arkansas
(Foster) Rogers. Nell H., I, 1914, at home ..... Miami
Forsyth, Fred, II, 1917, 25 Brown avenue ..... Akron, Ohio
Forsyth, Andrew, I .....
Francis. Victor. II. 1908. Supernitendent, Wagoner Light and Water Plant ..... Wagoner
Freeman, Ray F., I, 1916, Stock Farm ..... Fort Worth. Texas
(Frieday) Barnett, Almira, IV, 1912, at home ..... Crossett, Arkansas
Frieday, Gladys, IV, 1917, Teacher ..... Brush, Colorado
French Mattie, IV, 1917, Teacher ..... Cushing
Frensel. H. H., II, 1912, 5510 Ingleside avenue ..... Chicago, Illinois
Foster, Faye F., I, 1915. Box 1930, Mid-Co Co. ..... Tulsa
Friedemann, Theodore, V, 1915, Medical Corps. Base Hospital ..... Fort Hancock. Georgia
Friedemann. Wm. G., V, 1913, 424 Duncan street ..... Stillwater
Frier. C. H., II, 1911 ..... Dallas. Texas
Frost, John, II, 1918, 1301 Dewey ..... Bartlesville
Funda, F. P., II, 1910, Assistant Engineer ..... Bordeaux, France

Gaasch, Glenn, II, 1909. Chief Engineer, Sinclair Oil Co. ..... Tulsa
Gager. E. H., II, 1908, Room 524, 72 W. Adams. 1318 Eddy street ..... Chicago. Illinois
Gallagher, E. C., II. 1909, Physical Director. A. and M. College ..... Stillwater
Galyon, E. O., II. 1911, 3969 De Tonty street ..... St. Louis, Missouri
Gammie, R. J., II, 1910, Assistant Engineer, Valuation Department, Texas and Pacific Railway Co. ..... Dallas, Texas
Gardner. Frank, II, 1911. 1008 Texas avenue ..... Houston. Texas
Garrett. E. L., VI, 1915. Box 176 ..... Coldwater, Kansas
Gaudian, Will, II, 1912, Wireman, Electrical Division, Panama Canal ..... 24 Pedro Miguel

Geren, Louis, I, 1917, U. S. Marines ..... Somewhere in France
Getgey, John J., V, 1914, Box 1484 ..... Tulsa
Gilbert, N. T., III, 1898, Banker, Producers' State Bank ..... Tulsa
Gilbert, J. C., I, 1904, Department of Agriculture, State House ..... Harrisburgh, Pennsylvania
Giles, O. A., VI, 1919 ..... Sand Springs
Gilmer, T. P., II, 1913, City Electrician ..... Clinton
Gloeckner, G. L., II, 1917 ..... Miami, Florida
Goe, Walter B., VI, 1918 ..... Hillsdale
Goff, T. T., III, 1900, Teacher in State Normal School ..... Whitewater, Wisconsin
Gollehon, Floyd, II, 1910, Piano Salesman ..... Cherokee
Goltry, H. U., V, 1913, Farmer-Stockman ..... Marietta
Goold, Christine, IV, 1919 ..... Mangum
Goom, Austin, V, 1912, Banker, Farmers' State Bank ..... Ripley
Gordon, Mae, IV, 1916 ..... Haskell
(Gordon) Walters, Julia, VI, 1916, at home ..... El Reno
Gougler, F. A., I, 1909, County Agent ..... Quincy, Illinois
Graham, Earl E., I, 1915, Secondary Agricultural School ..... Magnolia, Arkansas
Graham, Milton C., VI, 1916, care Grove & Hewitt Plantations ..... Marianna, Arkansas
Graham, Quentin, II, 1914, care Westinghouse Electric and Mfg. Co. ..... East Pittsburgh, Pennsylvania
Graham, Douglas S., V, 1914 ..... Charlestown, Arkansas
Granberry, Carl Ellis, VI, 1914, Medical Student, University of Kentucky ..... Louisville, Kentucky
Gravells, E. E., II, 1913, Road and Bridge Contractor ..... Ardmore
(Gray) Wheeler, Ruth, V, 1917, at home ..... Blackwell
Gray, Willis N., II, 1917, care Jefferson Hotel ..... Electra, Texas
Gray, Julia, IV, 1918, Teacher ..... Kieffer
(Gray) Ward, Nina, IV, 1916, Teacher ..... Watonga
Gray, W. F., I, 1912, County Agent ..... Woodward
Green, W. J., I, 1916, Extension Worker, via San Francisco, California ..... Agana, Island of Guam
Gregory, H. W., I, 1912, 416 Harvey avenue ..... Lafayette, Indiana
Greiner, E. M., III, 1899, Chemist ..... New Bedford, Pennsylvania
Griggs, Oscar C., VI, 1915, Teacher ..... Caddo
Gulick, H. W., II, 1903, Metallurgical Engineer, Moore-Jones Brass Metal Co. ..... St. Louis, Missouri
Guynn, P. N., II, 1904, Chief Draftsman, Illinois Steel Co. ..... Chicago, Illinois

(Hagar) Groves, Hyral, V, 1910, at home ..... Ripon, Wisconsin
Hagar, William Edgar, I, 1914, Manager of Central Garage ..... Stillwater
(Hale) Cooley, Fannie, VI, 1917 ..... Altus
Hall, Roy V., II, 1911, Farmer ..... Perkins
Hall, Ethel Faye, VI, 1914, Teacher ..... Apache
Ham, Joe, II, 1919 ..... Lawton
Hamilton, F. C., V, 1910 ..... La Junta, Colorado
Hamblin, Clyde, II, 1904, 11 Fairmont, N. W. ..... Washington, D. C.
Hamilton, J. Homer, V, 1910 .....
(Hamilton) Cross, Fearn, V, 1913 ..... Mount Holly, New Jersey
Hamon, C. A., II, 1910, Electrical Engineer ..... Salt Lake, Utah
Hamon, R. J., V, 1911 ..... Washington, D. C.
Hamon, Fannie, V, 1908, at home ..... Davis, Florida
(Hancock) Hess, Joy B., IV, 1909 ..... Oklahoma City
Hancock, A. V., II, 1907, Manager, Oklahoma City Office, Southwestern General Electric Co. ..... Oklahoma City
Hanna, O'Lula, VI, 1919 ..... Braymer, Missouri
(Hannifan) Vance, Edna Josephine, IV, 1914, at home ..... Corwin, Kansas
Hann, F. R., Jr., II, 1912, Robidoux Polytechnic School ..... St. Joseph, Missouri
Harnden, M. G., I, 1917, R. D. 4 ..... Marlow
Harnden, F. D., VI, 1914, 515 Lewis street ..... Stillwater
Harnden, E. F., V, 1912, Instructor in Bacteriology and Chemistry, A. and M. College ..... Stillwater
Harris, Motier, VI, 1917, Teacher ..... Supply
Harris, June Bibby Inez, VI, 1913, Teacher ..... Morris
Harrison, L. D., V, 1913, 113 E. 14th street ..... Oklahoma City
Hart, Haden, I, 1913, Stock Farmer ..... Hansford, Texas
Hartenbower, A. C., I ,1905, Extension Division ..... Manhattan, Kansas
Hartman, T. J., III, 1898, Vice President, Producers' State Bank ..... Tulsa
Hartshorne, E. C., II, 1912, Chief Operator, Balboa Substation ..... Balboa, Canal Zone
Harvey, C. E., II, 1911, Consulting Engineer ..... Chicago, Illinois
Harvey, Ruth, VI, 1916, Teacher ..... Devol
Harvey, J. W., II, 1913, 615 Maryland avenue ..... Washington, D. C.
Hastings, Alice, IV, 1905 ..... Amber
Hatch, Hazel, V, 1916, care Asbury College ..... Wilmore, Kentucky
Havenstrite, Ralph W., I, 1915 ..... Lovell
Hayes, Clara, VI, 1916, Teacher ..... Mounds, Illinois
Haymes, Winton R., I, 1917, Silver Crown Mining Co. ..... Garber
Hays, Glenn G., VI, 1915 ..... Harper, Kansas
Hayes, Philip H., VI, 1917, Extension Division, A. and M. College ..... Stillwater
Hays, Frank A., I, 1908 ..... Laramie, Wyoming
Hedger, H. R., I, 1913 ..... Idabel
Heilman, Paul L., VI, 1916 ..... Afton

Hertzler, Joy, VI, 1919 ..... Aline
Helmer, Richard, II, 1917 .....
Hemphill, Ora L., II, 1908, 2599 W. 14th street ..... Little Rock, Arkansas
Henderson, Georgia, VI, 1916, Teacher ..... Wann
Hendrickson, Elma, I, 1916, Farming ..... Boynton
Henson, Ethen, IV, 1915, Teacher ..... Ramona
(Herndon) Herron, Maye, IV, 1914, at home ..... Idabel
Herron, L. G., I, 1913, County Agent ..... Idabel
Herrick, H. C., II, 1912, Kansas Truck and Motor Co. ..... Wichita, Kansas
Heston, Lucille, VI, 1916, Teacher ..... Devol
Heston, Adrian, II, 1915, 1530 Vincent avenue ..... Chicago, Il inois
Hewett, Norma, IV, 1916 ..... Oilton
Hewett, Paul M., I, 1915, Instructor ..... Pine Island, Minnesota
(Hiet) Wiley, Sadie, IV, 1915, at home ..... Kingfisher
Hiet, M. E., II, 1912, County Engineer ..... Pawnee
Hildebrand, Mrs. E. B., IV, 1918, Route 5 ..... Chickasha
Hildebrand, Eric B., I, 1918, Route 5 ..... Chickasha
Hildebrand, L. E., II, 1910 ..... Stroud
(Hill) Wilber, Ruth, IV, 1917, at home ..... Stillwater
(Hill) Bartlett, Vera, 1912, at home ..... Rye, Colorado
Hines, G. E., II, 1905, Chief Engineer, Ullen Contracting Co. ..... Suffolk, Virginia
Hinkel, John, V, 1917, 602 Duncan street ..... Stillwater
*Hirschi, Fred, II, 1918 .....
Hitchcock, Ethel, VI. 1917, Teacher ..... West Plains, Missouri
Hitchcock, Edith, VI, 1917 ..... West Plains, Missouri
Hobbs, Hugh, II, 1912, 1055 Railway Exchange Bldg. ..... St. Louis, Missouri
Hogle, Ellen, IV, 1919, Teacher ..... Lawton
Hoke, Harry G., II, 1907, 1031 E. 12th street ..... Brooklyn, New York
Hoke, C. E., I, 1907, 301 Duncan street ..... Stillwater
Hoke, Roy, I, 1917, Manager of Refinery ..... Quay
(Hoke) Hart, Rhoda Charlotte, IV, 1914, at home ..... Hansford, Texas
Hoke, Mac, I, 1912, Agriculturist, County Demonstrator ..... Enterprise, Oregon
Hoke, George, V, 1911, 314 Maple avenue ..... Sti lwater
(Holford) Talbot, Ina Crenshaw, VI, 1914, at home ..... Kansas City, Missouri
Holleman, Mathilda Gertrude, IV, 1914, Teacher ..... Salt Lake, New Mexico
Holmes, D. L., V, 1908, 129 Seldon avenue ..... Detroit, Michigan
Holmes, O. W., I, 1908. 4825 California street ..... San Francisco, California
Holton, Pauline, IV, 1915, at home ..... Quinlan
Hoover, G. W., III, 1903, Chemist, U. S. Food and Drug Laboratory ..... Chicago, Illinois
Hopkins, Maude, IV, 1918, Teacher ..... Ryan
Hopkins, Blanche, IV, 1913, Teacher ..... Luther
Hopps, C. W., II, 1911, Public Service Commission, New York ..... Boundsville, New Jersey
Horner, J. T., VII, 1916, Hamilton Hall, Columbia University ..... New York, N. Y.
Horton, Earl, I, 1916, First Lieutenant, 34th Infantry ..... Camp Funston, Kansas
(Houck) Stewart, Afton, VI, 1916, at home ..... Independence, Kansas
Hostetter, Eston, II, 1919, 207 Barnes Bldg. ..... Muskogee
House, R. M., II, 1903 ..... Bristow
Houston, Mamie G., III, 1903, Teacher ..... Cambridge, Idaho
Howell, Carleton E., II, 1906, 8 Fernwood Place ..... Upper Montclair, New Jersey
Huddleson, I. F., V, 1915 ..... East Lansing, Michigan
Huffman, Louis D., V, 1914 .....
Huffnabel, Chas., I, 1913, Instructor in Bacteriology, University of Ohio ..... Columbus, Ohio
Hughes, Pauline, VI, Title Guaranty and Trust Co., 723 S. Elwood ..... Tulsa
Hunt, Gertrude, III, 1902, Teacher ..... San Diego, Ca'ifornia
Hunter, Alice, IV, 1919, 803 College avenue ..... Blackwell
Hurst, J. B., I, 1917 ..... Jefferson
Hurst, R. Bradford, III, 1901 ..... Jefferson
(Hurst) Suits, Nina B., III, 1903 ..... Jefferson
Houck, Kathleen, IV, 1919 ..... Stillwater

Ives, E. E., II, 1917 ..... Oilhill, Kansas
Isenberg, Olivia, IV, 1919, Teacher ..... Perry
Isenberg, Verna, VI, 1919, Teacher ..... Pawnee
Ives, Fred H., I, 1910, Head of Department of Agriculture, West Texas State Normal ..... Canyon, Texas

Jablow, Mrs. Chas., IV, 1915, at home ..... Stillwater
Jack. Eula, VI, 1917, Principal, Consolidated School ..... Healdton
Jackson. J. A., II, 1910, Room 12 Chandler Bldg. ..... Amarillo, Texas
Jackson, Wm. Edgar, I, 1914, State Entomologist ..... College Station, Texas
Jacobs, A. W., I, 1913 ..... Aitkin, Minnesota
Jacobs, L. A., I, 1913, County Agent ..... Anoka, Minnesota
(Jacobs) Autry, Ethelyn, VI, 1915, at home ..... Portland, Oregon
James, Cornelia, VI, 1916, at home ..... Stillwater
(James) Keeshan, Helen, IV, 1913, at home ..... Oklahoma City
Janeway, C. Harold, VII, 1918, Collinsville National Bank ..... Collinsville
Janeway, George M., III, 1902, Collinsville National Bank ..... Collinsville
Janeway, Helen, IV, 1912, Teacher ..... Drumright

Janeway, Lenore, V, 1908, Teacher ..... Shawnee
(Jarrell) Hartman, Mary, III, 1903, at home ..... Tulsa
Jarrell, E. A., 1896, 1233 Main Street ..... Bakersfie.d, California
Jeffords, Sherman, I, 1912, Farm Demonstration Agent, Court House Bldg. ..... Charlotte, North Carolina
Jeffords, Mary E., IV, 1914, 785 N. Euclid avenue ..... St. Louis, Missouri
Jenkins, Henry E., VI, 1918, Clerk in Department Store ..... Frederick
Jessee, W. B., I, 1911, Farmer ..... Supply
Jewitt, Kate A., III, 1901, at home ..... Udall, Kansas
Johnson, H. J., II, 1918, Engineer, Wagoner Electric Co. ..... St. Louis, Missouri
Johnson, Harry E., VII, 1917, State Market Commission, Capitol Bldg. ..... Oklahoma City
Johnson, S. B., I, 1912, Teacher ..... Tucson, Arizona
Johnson, Laura W., VI, 1912, Teacher ..... Henryetta
Johnson, Norma, V, 1909, Teacher ..... Clinton
(Johnson) Crosby, Lucy, V, 1912, Teacher ..... Devan Manor, Devan, Pennsylvania
*Johnston, J. C., II, 1905 .....
Jones, Fred L., V, 1917 ..... Marlow
Jones, E. L., II, 1914, Electrical Engineer ..... San Jose, California
Jones, Lloyd R., V, 1915, U. S. P. H. S. Hospital ..... Greenville, South Carolina
(Jones) Tuttle, Jeanne H., VI, 1916, Teacher ..... Cushing
Jones, C. Shelley, II, 1910 .....
Jones, Daisy Ladine, IV, 1914, at home ..... Stillwater
(Jones) Kent, Eva, VI, 1914, at home ..... Bartlesville
Jones, C. Vincent, III, 1902, Lawyer ..... Clay Center, Kansas
Jordan, Charles Neal, VI, 1914, Metallurgical Chemist ..... Waterburg, Connecticut

Katz, Henrietta, VI, 1915, Teacher ..... Sapulpa
Keller, Floyd W., V, 1917, State Health Inspector ..... Oklahoma City
Kennon, Wm. D., VI, 1914, County Agent ..... Alva
Kenworthy, Chester, I, 1917, 1107 Fremont street ..... Muskogee
Kenyon, Lucile, VI, 1915, Teacher ..... Cheyenne Wells, Colorado
Kenyon, R. S., II, 1903 ..... Oakland, California
Kenyon, R. E., II, 1910, Sales Agent, General Electric Co. ..... Oakland, California
Kerr, R. H., III, 1903, Chemist, Bureau of Animal Industry, U. S. Department of Agriculture ..... Hyattsville, Maryland
Keys, Alma, IV, 1917, Extension Division, A. and M. College ..... Stillwater
Kezer, C. L., III, 1901, Route 1 ..... Stillwater
Kidd, J. W., II, 1904, Professor of Engineering, State School of Mines and Metallurgy ..... Fort Bliss, Texas
Kile, Eugene, VI, 1915, Principal of Oilton High School ..... Oilton
Kilpatrick, Chas. I, 1917 ..... Tishomingo
(Kilpatrick) Gregory, May, IV, 1914, at home, 416 Harvey avenue ..... Lafayette, Indiana
(Kilpatrick) Newton, Pearl, IV, 1919, at home ..... Stillwater
Kilpatrick, Earl, I, 1912 ..... Military Service
Kimbell, James Albert, I, 1917, 1236 W. 12th street ..... Oklahoma City
Kinder, W. E., III, 1903, 1641 S. Wichita street ..... Wichita, Kansas
King, B. D., II, 1910, Engineer and Surveyor ..... Wharton, Texas
(Kirkpatrick) Anderson, Victoria, V, 1910, at home ..... American Falls, Idaho
Kirkpatrick, Katie C., V, 1911, Teacher ..... Crockett, Texas
Kirkpatrick, Cecil, IV, 1909 ..... Blackwell
Knause, E. J., I, 1905, Druggist, 24 Lester street ..... Kansas City, Missouri
(Knight) Brahaney, Lillian, VI, 1917 ..... Ranger, Texas
Knoblock, Fred L., II, 1912, Knob'ock-Wood Laboratories ..... Tulsa
Knoblock, Cecil C., V, Tulsa Laboratories ..... Tulsa
Kolshorn, Agnes, V, 1913, Columbia University ..... New York, N. Y.
Kooken, E. R., I, 1910, 202 Exchange Bldg. ..... Bellingham, Washington
(Kraemer) Edson, Marguerite, VI, 1915 ..... Frederick
Krall, J. A., I, 1913, County Agent ..... Manchester, Iowa
Kratka, Ralph, III, 1902, Inspiration Consolidated Copper Co. ..... Miami, Arizona
Krepps, Samuel J., Jr., II, 1914, 1219 Elder avenue ..... New York, N. Y.
Krisher, Sherman, I, 1918, care A. and M. College ..... Stillwater
Krone, Floy C., VI, 1916 ..... Sweethome, Oregon
Krone, Jessie, IV, 1918, at home ..... Chandler
Knight, Eugene, I, 1919 ..... Stillwater

Lahman, W. L., III, 1909 ..... Stillwater
(Lahman) Simank, Ruth, V, 1914 ..... Stillwater
Lane, Frank P., I, 1913, County Agent Leader ..... Laramie, Wyoming
Lantz, A. G., II, 1907 ..... Orland, California
Lantz, C. R., II, 1917, Electrical Engineer, Tacoma Drainage Co. ..... Tacoma, Washington
Lauderdale, Ruby, V, 1918, Assistant in Science and Literature, A. and M. College ..... Stillwater
Laugh'in, Mary, IV, 1919, Teacher in High School ..... Anadarko
Leichti, H. S., II, 1911 ..... Address Unknown
Leslie, Lewis, V, 1918, Chemist ..... Ponca City
Leteer, C. R., I, 1908, Superintendent, San Antonio Experiment Station ..... San Antonio, Texas
Lewis, Arthur, III, 1901, Assistant State Entomologist ..... Atlanta, Georgia
Lewis, E. G., I, 1896, Gas Lease Broker, 1631 Cheyenne ..... Tulsa
(Lewis) Johnson, Myrtle I., IV, 1910, at home ..... Tucson, Arizona

Lewis, Carrie, III, 1905, Teacher ..... Enid
Lewis, Clarence W., II, 1916, District Engineer, 905 Hibernia Bldg. ..... New Orleans, Louisisana
Lewis, Incz, IV, 1919, Home Economics Instructor ..... Waurika
Lincoln, H. J., II, 1908, General Machine-shop Foreman ..... Chicago, Illinois
Lindsay, R. V., II, 1908, Famrer ..... Kingfisher
Long, Amy, VI, 1918, Teacher ..... Chandler
Loomis, Alden H., I, 1916 ..... Hollis
Lovell, Clemens M., II, 1916, Westinghouse Electric Co. ..... Pittsbuargh, Pennsylvania
(Losey) Barnes, Portia M., IV, 1913, at home ..... Tucson, Arizona
Lovell, Thomas J., II, 1912, Assistant Engineer's Division, U. S. Reclamation Service ..... Denver, Colorado
Lovett, A. E., I, 1904, State Agriculturist and Agent ..... Fort Collins, Colorado
Lowman, E. F., V, 1912, Superintendent of Schools ..... Billings
Lowry, Fern, V, 1916, Psychologist ..... Stillwater
(Lowry) Utt, Ethel, IV, 1913, at home ..... Houston, Texas
(Lowry) McKee, Theo., III, 1906, at home ..... Stil water
Lowry, C. H., III, 1902, Attorney-at-Law ..... Stillwater
Lowery, Philip H., I, 1916, Teacher in High School ..... Stillwater
Lynch, H. W., II, 1912, Substation Operator, Commonwealth-Edison Co. ..... Chicago, Illinois

McArthur, C. L., III, 1911, Dairy Bacteriologist, Bureau of Animal Industry ..... Washington, D. C.
McBride, H. F., II, 1903, Superintendent Guanajuanto Electric Co... ..... Guanajuanto, Mexico
McBride, J. F., II, 1904 ..... Military Service
McBride, R. V., V, 1915, Truck Farming ..... Fort Lauderdale, Florida
McBride, John D., V, 1911, North Husband street ..... Stillwater
(McBride) Matherly, Iva, IV, 1910, at home ..... Sugar Grove, North Caro ina
McCall, J. G., I, 1908, Instructor in Agriculture ..... Blooming Prairie, Minnesota
McCarrel, Mrs. Fred, VI, 1918, Teacher ..... Stillwater
McCarrel, Fred, VI, 1916, Instructor, School of Education, A. and M. College ..... Stillwater
McCaslin, W. W., II, 1912, Electrical Division, Panama Canal ..... Ancon, Panama
McClure, Marguerite Shermerhorn, V, 1914, at home ..... McAlester
McCollom, Walter, V, 1917, 413 S. Bickford ..... El Reno
McConnell, Marjorie, VI, 1915, Teacher ..... Sand Springs
McElroy, C. H., I, 1906, Assistant in Bacteriology, A. and M. College ..... Stillwater
McElroy, C. E., II, 1917, 1618 Penn street ..... Denver, Colorado
McIlvain, Chas. I, 1913, Farmer ..... Ponder, Texas
*McIntyre, J. C., II, 1911 .....
McKay, M. B., VI, 1911, Assistant Plant Pathologist, Oregon Agricultural College ..... Corvallis, Oregon
McLelland, Wm., I., 1914, Farmer ..... East Point, Louisiana
McLelland, Mathilde, VI, Student, Sargent's School ..... Cambridge, Massachusetts
McMullin, Samuel L., II, 1909 ..... Address Unknown
McPheeters, Marguerite, IV, 1912, Professor of Home Economics ..... Edmond
McPheeters, T. R., VI, 1917, Superintendent of Schools, ... Edmond
McPhecters, Martha, IV, 1913, Extension Office, A. and M. College ..... Stillwater
McPheeters, Wm. H., II, 1909, Assistant Professor of Physics, Texas A. and M. College ..... College Station, Texas
McPheeters, A. A., I, 1912 ..... Fairbuilt, Minnesoth
McReynolds, A. B., III, 1899, Accountant, Southern Pacific Milling Co, ... King City, California
McReynolds, S. A., III, 1902, Chemist, 2055 W, Adams street ..... Chicago, Illinois

Madigan, Blanche, IV, 1917, Teacher, Home Economics ..... Guthrie
Madigan, Gladys, VII. 1919, 111 W. 14th street ..... Oklahoma City
Mahaffey, Max, II, 1918, Empire Gas and Fuel Co. ..... E'dorado, Kansas
Mallory, Maisie, VI. 1918 ..... Arapaho
Malone, J. S., I, 1900, County Agent ..... Tulsa
*Mannheimer, Ruth, IV, 1914 .....
Mantle, David Leroy, II. 1918. 233 W. Jefferson ..... McAlester
Mantle, Guy, I, 1915, 144 S. Hawthorne ..... Indianapolis, Indiana
Marble, Mable. VI, 1918 ..... Yale
Marker, Walter, I, 1914, Teacher ..... Chickasha
Markwell, Hazel, VI, 1918, Teacher ..... Stillwater
Markwell, Rachel. IV, 1919 ..... Choctaw
Markwell, Earl D., I. 1919 ..... Collinsville
Maroney, Hugh V. 1917 ..... Stillwater
Marple, Vern, III, 1904, American Bank and Trust Co. ..... Denver, Colorado
Marsh, William. I, 1918, Route 3 ..... Chickasha
Marsh, Walter R., II, 1916, 5029 W. 23d street ..... Cicero, Illinois
Marsh, Corinne, IV, 1915, at home ..... Springfield, Missouri
Marsh, Venus Lee, V, 1913, Teacher ..... Springfield, Missouri
*Martin, J. Elmer, V. 1917 .....
Martin, Ewing, VI, 1917, Teacher ..... Collinsville
Martin, A. O., VI, 1919 ..... Brinkman
Martin, Esther IV. 1919, Home Economics Instructor ..... Duncan
Marx, Lloyd, II, 1915, Partner in Dry Goods and Clothing Store ..... Pawnee
Marx, Myron. II, 1917, Teacher, High School ..... Guthrie
Masno, Will J., II, 1916, A. E. F., Siberia, via ..... San Francisco, California
Mathieu, Elro, I., 1917 ..... Lawton

Mathews, R. N., V, 1917, care Bigheart Refining and Production Co. ..... Bigheart
Mayall, S. J., II, 1911, 725 S. Chicago street ..... Los Angeles, California
Mayer, Sylvia, IV, 1915, Teacher of Domestic Science ..... Drumright
Means, P. E., II, 1908, Burro Mountain Copper Co. ..... Tyronne, New Mexico
Melton, F. Armon, V, 1915, 209 West street ..... Stillwater
Melton, W. A., II, 1913, W. 17th street ..... Tulsa
Merrifield, F. R., I, 1913, Evacuation Hospital No. 15 ..... Fort Riley, Kansas
Merrill, A. J., II, 1913, 1804 Rorst street ..... Charleston, West Virginia
Merry, George, V, 1913, Chief Chemist for Consumers Refining Co. ..... Cushing
Merydith, C. S., I, 1912, County Agent ..... Ponca City
Miller, Bertha, V, 1916, at home ..... Beeville, Texas
*Miller, L. C., I, 1900 .....
Miller, Ella Nora, VI, 1914, Dean of Fine Arts, Phillips University ..... Enid
Miller, Esther Caroline, IV, 1914 ..... East Enid
(Miller) Webb, Milma Viola, IV, 1914, at home ..... St. Louis, Missouri
Miller, Maud, III, 1903, Bookkeeper ..... San Antonio, Texas
Millikan, Chas. V., V, 724 Wallace avenue ..... Pittsburgh, Pennsylvania
Miltimore, Cora, A., V., 1899, Librarian, University of Florida ..... Gainesville, Florida
Mitchel, Joe, VI, 1915 ..... Military Service
Mitchell, L. C., V, 1909, Chemist, Wilson & Co., Meat Packers ..... Chicago, Illinois
Mitschrich, M., II, 1913, Designer for Moloney Electric Co. ..... St. Louis, Missouri
Mittendorf, T. H., I, 1917, Armour Packing Co., Production Department ..... Chicago, Illinois
(Mondy) Roberts, Beulah, IV, 1916, at home ..... Oklahoma City
(Moore) Kyger, Helen, VI, 1916, at home ..... Stillwater
Moore, J. Allen, V, 1911, 1376 Pearl street ..... Denver, Colorado
Moore, A. I., I, 1908, Minister ..... Lehigh
Moore, R. H., V, 1908, Abstractor of Titles ..... Stillwater
Moorman, Helen, IV, 1916, Teacher ..... Comanche
Moote, T. P., II, 1910, Room 524 Frick Bldg. ..... Pittsburgh, Pennsylvania
Morgan, Bernice, V, 1904, Stenographer, Oregan State Bank ..... Bend, Oregon
Morgan, Vera, IV, 1917, Teacher ..... Perkins
Morris, Clinton, III, 1898 ..... Mason, Georgia
Morris, O. M., I, 1896, Professor of Horticulture ..... Pullman, Washington
(Morrison) Harrison, Virginia, VI, 1915 ..... Stillwater
(Morrison) Berry, Edwina, III, 1907, at home ..... Stillwater
*Morrow, C. E., II, 1903 .....
Morrow, Bertha J., IV, 1914, Teacher ..... Broken Arrow
(Morrow) Watkins, Jessie, III, 1903, Home Demonstration Agent ..... Clinton
(Morrow) Hall, Ella May, IV, 1914, at home ..... Perkins
(Moseley) Peck, Mossie, IV, 1919 at home ..... Stillwater
Moseley, Frances, VI, 1917, Teacher, Murray State School ..... Tishomingo
*(Moskedoll) McArthur, Olga, IV, 1911 .....
Moyer, O. J., I, 1915 ..... Deer Creek
Mullen, Clyde, I, 1915, care Oklahoma Farmer-Stockman ..... Oklahoma City
Muncie, Blanche, IV, 1917, Teacher ..... Wynnewood
Murphy, Henry F., I, 1918, Kemper Military Academy ..... Boonville, Missouri
Murray, Clive E., I, 1917 ..... Kenefick
Musgrave, Letha, IV, 1919, 301 Lowry hall, C. I. A. ..... Denton, Texas
Myers, Ruth, IV, 1919 ..... Luther
Myers, S. E., III, 1899, A., T. and S. F., Railway Co. ..... Perry
Murray, James P., II, 1919 ..... Lawton

Nash, Byron M., II, 1917 ..... Paden
Naylor, H. R., I, 1916 ..... El Reno
Needham, I. H., I, 1915 ..... Ponca City
Needham, Ollie, II, 1909, Westinghouse Electric and Mfg. Co. ..... Wilkinsburg, Pennsylvania
Neerman, Katherine, V, 1917, 1931 10th street ..... West Calagry, Alberta, Canada
Nellis, H. W., II, 1912, Government Service ..... Canal Zone, Panama
Nelms, E. B., VI, 1918, County Agent ..... McAlester
Nelson, Vinita, IV, 1916, Instructor in Home Economics ..... Ponca City
Nelson, Joseph S., II, 1917, 601 Equitable Bldg. ..... St. Louis, Missouri
Nelson, I. A., V, 1917, Graduate Student Assistant in Chemistry, A. and M. College ..... Stillwater
(Nelson) Chandler, Lila E., III, 1903, at home ..... Kalispell, Montana
Nelson, Stella, III, 1903, Druggist ..... Washington, D. C.
Nelson, J. A., III, 1905, Physician, No. 1, R street, N. E. ..... Washington, D. C.
Nelson, Cyrus W., III, 1903, Physician and Surgeon ..... Liberty, Texas
Nelson, Abigail E., III, 1907, Druggist ..... Washington, D. C.
Netick, Joe, II, 1917 ..... Cisco, Texas
(Newcomb) Crom, Bonnie, III, 1907, at home ..... Chicago, Illinois
Newell, Rose, VI, 1917, Principal of High School ..... Kieffer
*Newland, Mrs. Minnie, V, 1912 .....
(Newman) Batson, Eleanor H., V, 1914, at home ..... Washington, D. C.
(Newman) Frenzel, Iva F., IV, 1912, 537 W. Washington avenue ..... Madison, Wisconsin
Newman, Leo M., II, 1910, care Carter Oil Co. ..... Tulsa
(Neilson) Taylor, Mary A., III, 1903, at home ..... Perry
North, Esther A., III, 1908, Teacher ..... Geary
North, Kate, IV, 1912, 758 S. 3d street ..... San Jose, California
Notson, F. Carl, II, 1916, 511 Quapaw avenue ..... Bartlesville

O'Brien, G. E., I, 1913, 1721 E. 12th street ..... Des Moines, Iowa
Odor, Hesper Evelyn, IV, 1919 ..... Arcadia
Oldham, Albert, V, 1915, 315 N. Taylor ..... Eldorado, Kansas
Oldham, Lola, IV, 1919, Assistant in Extension Division ..... Stillwater
(Oldham) Doty, Rhodella, IV, 1917 ..... Stillwater
(Olentine) McNeely, Hazel, IV, 1918, 712 Calhoun street ..... Muskogee
Olentine, Fred B., III, 1906. Physician and Surgeon, St. Anthny's Hospital ..... Chicago, Il inois
Olmstead, Nora, IV, 1919, Teacher ..... Collinsville
Olmstead, Merritt, E., V, 1915 ..... Atlanta, Georgia
Olmstead, Mrs. Audrey, IV, 1919 ..... Atlanta, Georgia
Orr, Don M., I, 1918, Teacher ..... Madill
Orr, Paul F., V, 1915, 233 Aspinwall avenue ..... Brookline, Massachusetts
Osborn, John, II, 1906 ..... Address Unknown
(Oschman) Ross, Hattie, III, 1907, at home ..... Claremore
(Oschman) A len, Maude, V, 1912, at home ..... Claremore
Otey, M. J., V, 1902, Financial Secretary and Purchasing Agent, A. and M. College ..... Stillwater
Oursler, A. C., I, 1910, Creamery Owner, 916 W 6th street ..... Oklahoma City
Oursler, Anna Lovina, V, 1914, Teacher ..... Vinita
(Oursler) Taylor, Elizabeth, VI, 1912, at home ..... Stillwater
Owsley, Wm. A., I, 1918, Farmer, Route 2 ..... Pawnee

P

Painter, Ray H., V, 1912 ..... Webster Groves, Missouri
Parker, Hazel, IV, 1917, Teacher ..... Stillwater
Patterson, Gladys, V, 1919 ..... Walters
Patterson, W. H., II, 1915, Signal Corps ..... Fort Sill
Payne, L. F., I, 1912, Instructor in Poultry Husbandry, Massachusetts Agricultural College ..... Amherst, Massachusetts
Payne, Wm. F., V, 1915, 527 E. 5th ..... Oklahoma City
(Pearson) Melton, Thirza, IV, 1913, at home ..... Battle Creek, Michigan
Peck, O. T., II, 1908, College Store ..... Stillwater
Peck, C. P., I, 1914, Book Business, College Store ..... Stillwater
Peck, H. L., I, 1915, College Store ..... Stillwater
*Pierson, Helen, VI, 1918 .....
Pierson, James W., I, 1916, Farmer and Stockman ..... Pond Creek
Percival, Kathryn, IV, 1919 ..... Yale
Pigg, H. F., II, 1902, Assex Co. ..... Mineville, New York
Pochall, R. A., II, 1910, 119 W. 14th street ..... Muscatine, Iowa
Poole, Grace, VI, 1917, Teacher ..... Stillwater
Potts, F. M., I, 1912, Farmer, R. D. 3, Box 4 ..... Dexter, Michigan
Powell, Bessie, IV, 1918, Teacher, Highland Park, R. D. 1 ..... Chattanooga, Tennessee
Priest, Stella, V, 1912, Teacher in English, A. and M. College ..... Stillwater
Putman, O. L., I, 1918 ..... Wirt

R

Radnish, Helen, IV, 1916, Teacher ..... Dexter, Kansas
Ransom, George R., I, 1916 ..... Choctaw
Ransom, Harry, I, 1917 ..... Stillwater
(Rapp) Tolbert, Irma, IV, 1917, at home ..... El Reno
Rapp, C. W., I, 1915 ..... Stillwater
Ratliff, J. A., I, 1907 ..... Tryon
Rector, F. L., V, 1902, Greta Bear Spring Co., 434 E. 4th street ..... Blooklyn, New York
Reed, Fred A., II, 1911, Tire Vulcanizer ..... Suttons Bay, Michigan
Reeve ,C. T., II, 1907, Electrical Engineer and Superintendent, 128 Mohawk street ..... Cohoes, New York
Reeve, J. R., II, 1915 ..... Dewey
*Regnier, C. E., III, 1899 .....
Regnier, M. A., II, 1911 ..... Address Unknown
Reichman, Maude, VI, 1916, Teacher in High School ..... Norman
Reichman, Elizabeth, V, 1915, Teacher ..... Oklahoma City
(Reichman) Powers, Mab'e L., V, 1915 ..... Chickasha
Reid, Guy C., II, 1916, 319 W. 11th street ..... Oklahoma City
Reynolds, F. S., I, 1915, 2120 Canal street ..... New Orleans, Louisiana
Reynolds, E. B., I, 1914, Agronomist and Superintendent ..... Angleton, Texas
Reynolds, Oris H., II, 1914, 1812 Pendleton avenue ..... Kansas City, Missouri
Rhoades, T. W., II, 1913, Oil Business ..... Burkburnett, Texas
Richards, Hattie, IV, 1912, Teacher in High School ..... Denver, Colorado
(Reid) Arrington, Grace, IV, 1913, at home ..... Warner
Rinehart, Virgil, I, 1917 ..... Ramona
Ritter, L. B., V, 1910, Chemist, 300 E. 4th street ..... Oklahoma City
Roberts, Clarence, I, 1915, 503 N. Durland street ..... Oklahoma City
Roberts, D. M., VI, 1919 ..... Scroggs
Robertson, Ruben, I, 1917, Farmer ..... Tuttle
Robinson, Joe L., I, 1916, Teacher, Agronomy Department, University of Wyoming ..... Laramie, Wyoming
Robinson, Wm. B., I, 1917 ..... Somerton, Ohio
Robinson, A. G., III, 1903, Assayer ..... Phoenix, Arizona
(Rockey) Evans, Nellie, VI, 1914, at home ..... Oklahoma City
Roeser, Harry M., II, 1914, Bureau of Standards ..... Washington, D. C.
(Rogers) McDowell, Bertha, I, 1916, at home ..... Muskogee

(Rogers) Faulds, Almira, IV, 1910, at home ..... Wauchula, Florida
Roops, Ruth, IV, 1919 ..... Chandler
Rose, Rollin N., I, 1915 ..... Stillwater
*Rosenbaum, William, VI, 1918 .....
Ross, J. K., II, 1910, Hardware Merchant ..... Madill
Ross, Sam I., II, 1911, Instructor in Mechanical Engineering and Draftsman .....
..... Fort Collins, Colorado
Rudd, E. L., II, 1912, 490 W. 118th street, Apartment 35 ..... New York, N. Y.
(Ruble) Warren, Bertha, III, 1903, at home ..... Ada
Rush, W. S., II, 1905, 578 Hudson ..... New York, N. Y.
Russell, Margaret, IV, 1917, Teacher, 1434 W. 39th street ..... Oklahoma City
Russell, Mamie, IV, 1915, Teacher, 1434 W. 39th street ..... Oklahoma City
Russell, Carl, I, 1914, County Agent ..... Ardmore
Ryno, Madeline, IV, 1913, Stenographer, Extension Division, A. nad M. College ..... Stillwater

Santee, L. A., II, 1913, 701 Majestic Bldg. ..... Oklahoma City
Savage, Orville M., I, 1916, Savage Motor Co. ..... Ponca City
Schaefer, Paul, II, 1915, Assistant Engineer ..... Mountain View
Schnurr, Angie, IV, 1918, Teacher ..... Forgan
Schnurr, C., II, 1911, Box 246 ..... Cisco. Texas
Schreiber, S. C., I, 1913, 514 Lake street ..... Madison, Wisconsin
Schwark, Conrad W., I, 1914, Teacher ..... Canon City, Co orado
Scott, Wiley, I, 1915 ..... Address Unknown
Scott, J. H., II, 1917 ..... Covington
Scott, Izora, V, 1915, 605 W. 115th street ..... New York, N. Y.
Scott, E. M., II, 1913, 1511 W. 55th street ..... Los Angeles, California
Scrivner, Russell, I, 1916 ..... Pauls Valley
Scroggs, Ada, VI, 1919 ..... Perkins
Scroggs, P. G., I, 1915, Cameron State School ..... Lawton
Seeger, E. E., I, 1913 ..... Address Unknown
Selement, F. J., II, 1910 ..... Yukon
Selph, Layla, IV, 1918, Teacher ..... Waukomis
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(Sexauer) Lewis, Dorothy, IV, 1916, 1487 Pennsylvania avneue ..... Columbus, Ohio
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(Sheets) Smith, Grace, IV, 1916, at home ..... Clinton
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Shiflett, R. C., I, 1911, Teacher ..... Goodwell
Shiller, H. H., II, 1917 ..... Camp Pike, Arkansas
Shinn, E. H., I, 1917, State Capitol, 1735 F street, N. W. ..... Washington, D. C.
Shiry, E. E., VI, 1914 ..... Lipscomb, Texas
Shively, R. Rex, V, 1902, care Y. M. C. A. ..... Fairmont, West Virginia
Short, Robert, I, 1913 ..... Camp Pike, Arkansas
Sieglinger, J., I, 1913, Agricultural Expernment Work ..... Woodward
Sieglinger, Leona, VI, 1919, Instructor in Physics ..... Stillwater
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Skinner, E. Ray, VI, 1919 ..... Sand Springs
Smith, A. Ray, I, 1915, Asssitant County Agent ..... Muskogee
Smeltzer, C. E., III, 1902, Physician ..... Fairview, Nevada
Smith, G. C., VI, 1917, Parish Agent ..... Baton Rouge, Louisiana
Smith, J. G., I, 1911, Real Estate Business ..... Dallas, Texas
Smith, John Graham, I, 1914, Stock Farming ..... Newlin, Texas
Smith, Elwin J, II, 1914, Apartment F, 2020 Sherman avenue ..... Evanston, Illinois
*Smith, S. G., III, 1906 .....
Smith, C. Ray, V, 1910, Real Estate and Investments ..... Stillwater
Smith, R. R., V, 1913 ..... Russe'l, Wyoming
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(Snyder) Jacobs, Georgia, IV, 1913, at home ..... Mora, Minnesota
Southwick, Ivan, II, 1918 ..... Garber
Spaulding, J. A., I, 1905 ..... North Enid
Spear, Maude, II, 1915, at home ..... Bismark, North Dakota
Spencer, Tracy Henson, IV, 1918, at home ..... Copan
(Spear) Scrivner, Mary. IV, 1915, at home ..... Boerne, Texas
Spencer, Joe R., I, 1918 ..... Copan
*Spencer, Earl L., I. 1915 .....
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Spohn, Gladys, VI, 1918 ..... Supply
(Spurrier) Hedger, Kara, IV, 1917, at home ..... Stillwater
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Stokesberry, Lawrence, I, 1919 ..... Ok ahoma City
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Stewart, F. L., II, 1909 ..... Tulsa
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Stokesberry, L., I, 1919 ..... Oklahoma City
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Stout, Chas. G., II, 1916, Campbell Hotel ..... Oklahoma City
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(Stover) Olson, Nanna, V, 1909, at home ..... Cushing
Straub, Otto, I, 1910 ..... Camp Taylor, Kentucky
Surtees, L. V., I, 1917, Bachelors' Inn ..... Tulsa
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Tate, J. A., II, 1909, Sinclair Oil Co. ..... Tulsa
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(Thatcher) Bost, Jessie O., III, 1897, at home ..... Alva
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Thomas, Olive B., IV, 1916, Teacher ..... Edmond
Thomas, J. R., I, 1915, County Agent, 506 S. Missouri street ..... Roswell, New Mexico
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Thompson, W. Grady, VII, 1916, 609 Duck street ..... Stillwater
Thompson, Eugene R., I, 1912 ..... Luther
Thornberry, J. W., I, 1904, Butter-maker ..... Astoria, Oregon
Thornberry, W. T., II, 1903, Contractor, 3900 Euclid avenue ..... Kansas City, Missouri
(Thoroughman) Williams, Maude, III, 1904, at home ..... Perkins
Tibbetts, F. J., II, 1910, General Electric Co. ..... El Paso, Texas
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Tongue, George F., II, 1912, 2408 Foresst avenue ..... Dallas, Texas
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Trent, Dover, V, 1913, County Agent ..... Okmulgee
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Vance, Leon R., I, 1914, Teacher ..... Corwin, Kansas
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Walters, Joe, I, 1917, at home ..... Perkins

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Ware, Alta, IV, 1915, Teacher ..... Henryetta
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Weaver, Wm. Carl, VII, 1916, 310 S. Lawndale ..... Kansas City, Missouri
Weaver, Earl, I, 1913, Department of Animal Husbandry, Iowa State College ..... Ames, Iowa
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Webb, A. E., I, 1912, Teacher ..... Two Harbors, Minnesota
Webb, Nix, II, 1918, 1220 Commercial street ..... Waterloo, Iowa
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Weber, A. G., V, 1915 ..... Address Unknown
Weber, Herbert, II, 1915, Tester of Electrical Machinery and Apparatus, Westinghouse Electric and Mfg. Co. ..... Wilkinsburg, Pennsylvania
Wells, E. E., II, 1913, 206 Seamon Bldg. ..... Tulsa
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West, Wm. E., I, 1917 ..... Warner
(Wheeler) Colglazier, Pearl, IV, 1918, at home ..... Stillwater
Wheeler, C. P., I, 1917 ..... Blackwell
Wheeler, Birdie, VI, 1916, Teacher ..... Wann
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Whillock, Beuna, VI, 1917, Teacher ..... Stillwater
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White, Bob, I, 1919, Instructor in Horticulture, A. and M. College ..... Stillwater
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Wiener, Lawrence, I, 1915, Dairy Inspector ..... Long Island, New York
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Williamson, Captain Emery, II, 1916 ..... Camp Funston, Kansas
(Williamson) Hoke, Carrie, IV, 1915, at home ..... Enterprise, Oregon
Winkelman, Magadalen, VI, 1918 ..... Chandler
Wilson, Grace, IV, 1919 ..... Stillwater
Wilson, J. M., II, 1917 ..... Address Unknown
Wilson, Hester, IV, 1918 ..... Cordell
Wilison, Lillian Ella, V, 1918 ..... Stillwater
Wilson, Orville G., VII, High School Principal ..... Chickasha
Wikel, G. F., II, 1904, Designing Engineer, B. F. Goodrich Co. ..... Akron, Ohio
Wikel, H. H., II, 1911, Electrical Engineer, Gecker Bros. ..... Chicago, Illinois
Wiley, R. C., III, 1905, Chemist ..... College Park, Maryland
Williams, R. L., I, 1913 ..... Address Unknown
Williams, Guy P., II, 1910, Electrica lEngineer, Goodyear Rubber Co. ..... Akron, Ohio
Williams, Geo. J. VI. 1919 ..... Stillwater
Will, Doris G., II, 1910, Sales Department, Westinghouse Electric and Mfg. Co. ..... Wilkinsburg, Pennsylvania
Wilson, James, III, 1906, Professor at Cornell University ..... Ithaca, New York
Wilson, Clay E., VI, 1911 ..... Address Unknown
Wilson, Harry E., II, 1910, 501 Finney ..... Chillicothe, Illniois
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Winters, N. E., I, 1911, Superintendent, Experiment Station ..... Angleton, Texas
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(Wise) Lantz, Mable, IV, 1909, at home ..... Tacoma, Washington
Wise, Oscar, I, 1914, Employe; Gypsy Oil Co. ..... Kiefer
(Wise) Diggs, Blanche, V, 1898, at home ..... Stillwater
Witt, Harold, II, 1918, Westinghouse Electric and Mfg. Co. ..... Wilkinsburg, Pennsylvania
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Wood, C. A., I, 1908, County Engineer ..... Stillwater
Woodruff, W. W., II, 1918, 1301 Dewey ..... Bartlesville
Woodson, J. Clay, II, 1915, Electrical Inspector, 7725 Brashear ..... Pittsburgh, Pennsylvania
Woodson, Mortimer, I, 1917, Editor ..... Walters
Woodson, Marle M., III, 1902, Gazette Bldg. ..... Reno, Nevada
Woodworth, L. A., I, 1915, 818 N. Vine ..... Guthrie
Woodworth, J. E., I, 1905, care Marland Refinery ..... Ponca City
Woodworth, Clyde M., I, 1910, Field Assistant, Cereal Investment ..... Madison, Wisconsin
Word, Gurtha Ray, V, 1914, Teacher ..... Ramona
Worthington, W. H., II, 1910, Chief Engineer, care Aultman & Taylor Machine Co. ..... Mansfield, Ohio
Wortman, Leo, I, 1918, Farmer ..... Stillwater
(Wright) Reid, Gertrude, VI, 1916, at home ..... Oklahoma City

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Wright, H. M., II, 1915 ..... Address Unknown
(Wright) Wimer, Louise, VI, 1912, at home ..... Hopsonville, Montana
Wyant, Lynton D., II, 1917, 408 N. Cheyenne ..... Tulsa

Young, J. E., II, 1915 ..... Sharon, Pennsylvania
Young, Kenneth R., Government Reclamation Work ..... Round Lake, Mississippi
Young, Trissie, VI, 1919 ..... Ninnekah

Zamenacheck, Ed, II, 1908, Commonwealth-Edison Co. ..... Chicago, Illinois

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